

STUDENT SERVICES FOR OLDER UNDERGRADUATES: EFFECTS OF TWO
INFORMATIONAL GROUP INTERVENTIONS ON EXPRESSED
NEEDS AND PERCEPTIONS OF STUDENT SERVICES

By

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Ad Majorem Dei Gloriam

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The purpose of this study was to determine the effectiveness of two methods of communicating information about student services to older undergraduates. The population was the 30 years of age and older undergraduates attending the University of Central Florida for the first time during the spring term of 1986. From this population, a sample of 48 students participated in this study. A 3-part questionnaire, the Student Services and Undergraduate Needs Survey, and a follow-up questionnaire, the Use and Satisfaction with Student Services Survey, were developed for use in this study. An experimental, pre- and posttest, control group design was used.

The independent variable was specific information about four selected student services. It was presented to group 1 in a lecture and tour of services format and to group 2 through interactive, small group activities. Group 3, the control group, did not receive the specific information about the selected student services. Instead,

group 3 received information about student government and the programs and activities council. The dependent variables were the students' (a) knowledge about selected services; (b) needs in academic, career/occupational, and personal areas; (c) perceptions of student services; and (d) awareness, use, and satisfaction with student services eight weeks after the informational group interventions.

One-way analyses of variance, Duncan Multiple Range Test, and chi-square statistical procedures were used. According to the results, group 1 and group 2 were equally successful and significantly ($p < .05$) more successful than group 3 in raising the students' (a) levels of knowledge about the selected student services and (b) levels of awareness of student services assessed eight weeks after the treatments. However, group 1 was significantly more successful than group 2 or group 3 in raising the students' levels of agreement with a statement of positive perceptions of the efficacy of institutional patterns of communicating information about student services. In addition, a personalized approach and a collegial attitude during the outreach procedures and throughout the group processes appeared to be the deciding factors in persuading older students to attend and participate candidly in the informational groups.

CHAPTER I INTRODUCTION

The overarching educational purpose of our colleges and universities should be to encourage and enable intentional change in students throughout the life cycle. (Chickering, 1981, p. 2)

Older students, until recently a rarity on college campuses, are now an important part of the higher education student body. Since the early 1970s, many adults have been searching for answers to their personal and professional needs within the higher education system.

Need for the Study

In 1980 more than 5 million adults were enrolled in college-level degree credit programs on a part-time basis. Another 10 million were attending nondegree learning activities offered by the nation's colleges and universities. Considering that there were only 7 million full-time students in the country in 1977, the relative significance of the number of part-time older students in the population is clear (Bowen, 1980).

According to demographic statistical projections, in a few years the number of part-time adult students in higher education will exceed the number of full-time traditional age students. By the year 2000, adults may represent nearly 75% of the total enrollment in higher education (Bowen, 1980). Conversely, in the 1970s, the size of the traditional age population declined steadily. Lower birth rates,

reduced government assistance, and high attrition rates threatened the survival of many colleges across the nation (Magarell, 1980a, 1980b).

Researchers at the National Center for Education Statistics predicted that higher education enrollments would decline from 11.3 to 11 million between 1978 and 1988 (Bowen, 1980). However, in the early 1980s, college enrollment increased despite declines in the 18- to 24-year-old population. This increase in enrollment was caused by unexpected higher enrollment rates in the 18- to 24-year-old population, and higher enrollment rates for women, especially older women.

Kauffman (1986) analyzed these enrollment trends and concluded that, for various reasons, these trends were transitory and had only served to postpone the expected national decline in enrollments. Full-time student enrollment was expected to decline faster than the total head-count enrollment. According to Kauffman, this projected decline in enrollments would become a reality in the late 1980s.

In the late 1970s, researchers at the National Center for Education Statistics had suggested that educational institutions which could attract and retain older students would be most likely to survive the shifts in enrollment and the changing age composition of the American undergraduate population (Bowen, 1980). However, despite the evidence of enrollment statistics and current trends, few leaders of educational institutions have recognized or attempted to cultivate the enrollment potential offered by adult students. In the vast majority of collegiate institutions the academic structures and/or support services have not been altered in response to the characteristic needs of the older student population (Bach, 1982; Cross, Valley, & Associates, 1974). Attracting and retaining the older

student may not be a matter of selling the existing programs for the traditional age student to the older student. Rather, it may require many changes in the nature of the services themselves (Kegel, 1977; Lynch & Chickering, 1984). Some of these changes can be effected by student services professionals. Other changes are more in the domain of administrators and faculty.

Central to the development of specialized services is the administrator's commitment to the belief that older students are an integral and valued segment of the total student body (Bach, 1982; Kegel, 1977). In addition, to provide relevant education in a way that will accommodate older students' learning styles, it is necessary that faculty be sensitive to older students' needs as described by Knowles (1970) and Knox (1977) (Sherer, Herrig, & Noel, 1978). While much has changed since the "educational apartheid" (Newman, 1971) that characterized the education of adults in the 1960s, much remains to be changed to bring the education of adults to parity with the more comprehensive education available to traditional age college students throughout the United States.

Changes in educational institutions are facilitated by systematic research. In the study of adult student populations, researchers have found the widely heterogeneous nature of the older student group to be a problematic issue. Young adults, ages 18 to 21, are more alike in their developmental/educational needs than any group of adults over the age of 30. The widely heterogeneous nature of the older student group has led researchers to focus their studies on subgroups of older students at particular institutions (Hughes, 1983). Scott (1980)

reviewed a number of studies that identified the needs of the returning woman student.

Some studies have focused on the needs of elderly students (Ganikos, 1978; Kingston, 1982), others on the needs of minority elderly students (Rollins, 1983), married students (Flores, 1975), transfer students (Conroe, 1976), and commuter students (Jacoby & Girrell, 1981). Older students have been surveyed in a wide range of organized learning settings including noncredit courses, certificate programs, junior colleges, technical schools, senior colleges, and graduate degree programs (Sewall, 1984). Researchers also have assessed their interests and needs (Cross, 1979a), learning styles (Tarule & Weathersby, 1979), career goals (Johnstone & Rivera, 1965; Malin, Bray, & Dougherty, 1980), intellectual development (Strange & King, 1981), barriers to education (Carp, Peterson, & Roelfs, 1974), reasons for returning to school, triggers to participation in degree programs, and demographic characteristics (Aslanian & Brickell, 1980; Astin, 1976; Brodzinski, 1980).

Though a wealth of information about the older student has been collected, its generalizability across age, sex, educational program, region of the United States and other institutional and individual differences is improbable (Cross, 1981). Adult development theorists confirm the great variety of factors differentiating the adult life experience. They would suggest the existence of a wide range of age-linked life stages characterized by different sets of needs and goals at each stage (Chickering, 1976; Gould, 1972; Knox, 1977; Levinson, Darrow, Klein, Levinson, & McKee, 1978; Schlossberg, 1984).

Even though older students cannot be perceived as one uniform group, a number of researchers have worked to differentiate the younger or traditional age student and the older student. Hughes (1983) summarized the findings to three variables. Where the younger student may have few commitments or roles, the older student may be fulfilling several roles typical of mature adults in our society such as taxpayer, parent, spouse, and voter. Where the younger student's interests and time may be focused on the campus as a community, the older student may perceive the family or work environment as more important than the educational environment. Lack of time due to family and/or work commitments prevent the older student from centering on campus. The third variable relates to learning style. Where younger students accept the future application nature of formal learning, older students prefer learning for practical and immediate application.

Institutional response to the needs of older students has been affected by the diversity of the group, their off-campus focus, and the limits set on their available time by their multiple role commitments (Hughes, 1983). Nevertheless, administrators in an increasing number of institutions are committing energy and resources to modifying and creating programs to meet the needs of older students (Lynch, Doyle, & Chickering, 1984, 1985). The type and availability of services vary from institution to institution.

The need to know more about students in higher education has been a recurring theme in the field of student personnel work (Chickering, 1974; Delworth & Hanson, 1980; Kauffman, 1968). Researchers in the field of older students' services have consistently recommended the

review and revision of student services to ensure that the needs of older student populations are met (Gill & Frueling, 1979; Hurst & Ivey, 1971; Kasworm, 1980; Sewall, 1984; Tryon, 1980; Wallace, 1979). One of the most essential services that can be provided to older students is the effective communication of information regarding available services and programs (Cross, 1981; Fauquet, 1984; Rawlins, 1979; Reehling, 1980).

The need for the effective communication of information about student services to the older student population has been repeatedly documented. In a review of several regional and statewide studies assessing the needs of adult learners, Cross (1979a) concluded that the need for information about educational opportunities and lack of awareness or confusion about the functions and services of counseling/advising collegiate centers seemed to transcend region or locale. In Canada, Heinlein and Byers (1981), in a study of 700 full-and part-time undergraduates over the age of 25 at the University of New Brunswick, found that 58% were not aware that they had an academic adviser and more than half were not aware of available student services. More recently, across the United States, the College Board conducted a study of 10 public and private, 2-year and 4-year urban colleges and universities. The results of their Urban University Study (Davila, 1985) indicated that students attending urban institutions were generally dissatisfied with the manner in which information about programs and services was communicated. According to Cross (1979a), lack of information about existing services becomes an exclusionary barrier for older students because lack of information

prevents many adults from knowing which barriers are real and which no longer exist.

Despite its saliency, bridging the information gap, that is, testing the effectiveness of specific methods of communicating information about student services to older students, had not been documented. Similarly, the possible effects of information about existing student services on the way older students assess their academic, personal and/or career/occupational needs, and their perceptions of student services had not been explored.

Purpose of the Study

The purpose of this study was to determine the effectiveness of two methods of communicating information about student services to older undergraduates. Information was the independent variable.

1. Information was presented in the form of a lecture and in the course of a walking tour of services to group 1 participants.

2. Information was presented as part of interactive, small group activities to group 2 participants.

3. Information different from that communicated in groups 1 and 2, was presented in the form of a lecture during an interactive, group experience to group 3, the control group.

The effects of these informational interventions on the following variables were determined:

1. the students' knowledge about selected services;
2. the students' needs in academic, career/occupational, and personal areas;
3. the students' perceptions of student services; and

4. the students' awareness, use, and satisfaction with student services eight weeks after the treatments.

Rationale

In many colleges and universities, student services for the older student are not available. If available they are not perceived to be central to the mission of the institution (Bach, 1982). Acceptance and accommodation of older students in traditionally youth-oriented colleges and universities has been a gradual, institution-by-institution response to the concerted advocacy efforts of interested student services professionals and articulate older students (Lynch, Doyle, & Chickering, 1985).

Lynch and Chickering (1984) envisioned student services professionals adopting proactive roles as ecology managers/consultants and advocates for groups at risk. As ecology managers, student services professionals become assessors of environmental stresses, challenges, and supports. As mentors/educators, they become researchers of student characteristics and needs and teachers of life cycle and human development theory for students, faculty, and staff. As advocates, they become "mediators between student needs and institutional requirements, breakers of barriers, fighters against prejudice and discrimination, and modelers of change" (p. 69).

The task of student services professionals in these roles is to target their research and advocacy skills to focus institutional attention on the characteristics and concerns of particular student populations (Lenning & McAleenan, 1979). Traditionally, needs assessments have been used to evaluate the effectiveness of student services

programs. Indeed, student services programs can be effective only in so far as the services rendered are congruent with the needs of their clientele (Ganikos, 1978). Another useful research tool has been the consumer evaluation report (Kerr, 1980). Students as consumers can provide quantitative and qualitative data that can demonstrate the adequacy or appropriateness, or lack thereof, of student personnel services.

Hurst and Ivey (1971), Carney and Barak (1976), Davila (1985), and others have recommended that frequent sampling of student needs, use of, and satisfaction with student services be conducted to aid administrators in the making of informed decisions about the type and quality of student services/programs on campus. The delivery of appropriate student personnel services in higher education presupposes the existence of data that describe how students perceive their needs and how they use and evaluate the existing student personnel services. Indeed, how a person perceives determines in considerable measure that persons's use of supportive services (Towle, 1965). Information, or lack of it, affects how a person perceives (Cross, 1979a).

In order to serve the increasing numbers of older students enrolled in traditional undergraduate programs, student personnel professionals need specialized knowledge regarding the characteristics of older students and their requirements for appropriate academic and student personnel services. According to Chickering (1969), all college students experience some developmental needs. Adults who decide to assume the role and status of college students face numerous problems. Neugarten (1968) has identified and described the sense of shame experienced by persons who approach a life task off-time with

their cohorts. Schlossberg, Troll, and Leibowitz (1978), Aslanian and Brickell (1980), and others have written on the life changes, sometimes crises, that have preceded the adult's decision to return to college. Job loss, divorce, physical impairment necessitating retraining, mid-life career change, and the empty nest syndrome are some of the catalysts motivating the role transitions.

According to Stowig (1970), educators and student services professionals accept the premise that for the traditional age student self-understanding is a basic goal of higher education. In the education of adults other assumptions are made. The commonly held view is that adults, by virtue of their ages and life experiences, have mastered self-understanding. Other widely held assumptions are that adult need for organized educational opportunities can be met during the first one-fourth of the life span and conversely, that the need for education during the remaining three-fourths of a lifetime can be adequately met by incidental learning through daily experiences in coping with the ever-present problems of living and working (Leagans, 1978).

However, the need for appropriate academic and supportive services is likely to be as acute for the adult student as for the maturing adolescent. The search for identity is no less real for the adult student than for the maturing adolescent (Astin, 1976; Whitbourne & Weinstock, 1979). Similarly, adult students benefit from adequate financial aid, basic skills review courses, personal development issues counseling, and job finding skills workshops (Cross, 1981; Solmon, Gordon, & Ochsner, 1979). Older students benefit from knowing that there are common needs shared by older students everywhere by

virtue of the commonality of commitments and conflicts in the adult life experience (McCoy, 1977; Rapoport, 1965; Shipp, 1978). For the older student, this knowledge becomes a coping tool (Bartlett, 1970; Lowenstein, 1978; Weiss, 1976).

College faculty and student services professionals have ready access to professional literature dealing with the character and needs of the late adolescent/young adult student. A common body of knowledge and experience confirms the developmental needs of the traditional age students. No easily accessible data base exists on which to establish the legitimacy of adult students' needs (Bach, 1982).

Faculty and student services personnel benefit from knowing the salient academic, career/occupational, and personal needs of older students. Armed with this knowledge they can prioritize and plan for the required services with the same level of enthusiasm and commitment with which they have traditionally approached the well-known developmental needs of younger students. As a consequence, adult students are more likely to receive a more complete, humanistic, education.

Administrators require the same data to be able to provide informed leadership and radical re-direction in academic and support systems for the older student. Administrators need to know the levels of support either warranted or actually being provided to older students as consumers of the institution's academic and student personnel services (Bach, 1982).

If student services are truly a necessary and integral part of the educational process for all college students, and, if student personnel professionals are "to encourage and enable intentional developmental change in students throughout the life cycle" (Chickering,

1981, p. 2), then communication between institutions and their older students must be facilitated, older students' needs must be identified, and their perceptions of the relevance of existing services must be ascertained. Increased awareness about older student characteristics and their requirements for student services may encourage student services professionals to develop age appropriate programs and services that will promote growth and development of all students within the context of the institutional mission (Banning, 1980; McCarthy, 1975)

Definition of Terms

Expressed need--condition of deficiency perceived by undergraduates in the areas of their academic, career/occupational, and/or personal development. In Kurt Lewin's "field theory," a need can be represented as a force, a vector having magnitude, direction, and a point of application (Lewin, 1935). In this study, needs were perceived as forces that oppose the students' achievement of their educational goals.

Knowledge of selected student services--an assessment of the students' levels of information relative to (a) the specific services offered by each service, (b) who qualifies to use the services, (c) where the services are located, (d) hours of operation for each service, and (e) cost for the services.

Marketing perspective--a conceptual framework through which administrators can define who are the institutions' students-consumers, assess their needs, and develop and deliver programs and services to serve those needs. These mutually beneficial transactions

are effected within the institutional mission and achieve organizational objectives (Kotler & Goldgehn, 1981). Marketing principles support an ecological perspective in student personnel work. Lewin's (1935) concept of self in the life-space or organism-environment interaction can be applied to campus conditions, programs, and services. Student services personnel must be responsive to the needs of students and to the changing composition of the student population (Nayman & Patten, 1980).

Older student--a full-time or part-time student in undergraduate higher education who is 30 years of age or older. While asserting the widely heterogeneous characteristics of the 30 years of age or older student population, Gould (1972) and Kasworm (1982) suggested that traditional age students, 18 through 22 and late completers, 23 through 29, as a group, are significantly different from students 30 years of age and older in psychological, socioemotional, and behavioral characteristics.

Perceptions of selected student services--an assessment of the students' agreement with statements that, according to the literature, reflect perceptions of student services expressed frequently by older undergraduates (Davila, 1985; Kasworm, 1978).

Selected student services--specific student personnel services providers selected to be the focus of this study's informational group interventions. Four major providers of student services were selected as follows: (a) counseling and testing center, (b) financial aid, (c) placement center, and (d) recreational services. These service providers were selected because, according to the literature, older undergraduates generally express varying levels of awareness,

utilization, and satisfaction with these services (Davila, 1985; Kasworm, 1978).

Student services--the full range of organized services offered by a college or university to aid the student, i.e., personal, financial, career, and academic learning; orientation; testing and evaluation; student activities; remedial or tutoring aids; and housing.

Student services professionals--individuals who by reason of specialized education and experience are employed as counselors, directors, or administrators of student services.

Treatment--to be interpreted in the context of experimental research as an intervention. In this study, the treatment was the information presented to the students.

Organization of the Study

The remainder of this study is organized in the following manner: A review of the literature appears in Chapter II. The methodology is presented in Chapter III. The results of the study are presented in Chapter IV, and the implications posed by the findings are discussed in Chapter V.

CHAPTER II REVIEW OF THE LITERATURE

Presented in this chapter are theoretical and developmental issues relative to older student needs, student services, and the treatments used. In addition, the demographics of the older student population and the value of needs assessments as research tools are discussed.

Basic to humanistic values is the belief in human dignity and equality of opportunity for the maximum realization of each individual's potential throughout life (Bartlett, 1970). According to Olivo (1973), access to educational opportunity is the birthright of every individual. In recent years, however, as older persons have enrolled in traditional undergraduate degree programs, their success or lack of it has raised questions about institutional recruitment, admissions, and retention strategies that may unwittingly curtail or deprive these individuals of educational opportunities (Fauquet, 1984). According to the American College Testing Program (1979), assessing the older student population's needs and concerns and responding to them can create a "staying" institutional environment. Levitz and Noel (1980) estimated that adequate institutional response to the needs of older students would attract nearly 40 million more into undergraduate higher education.

To assess and to respond adequately, student needs and services must be conceptualized within a theoretical framework that can show

their interdependence, i.e., how the idiosyncracies of adult development can affect older students' expressions of need and perceptions of student services.

Theoretical Framework

Ever since Kurt Lewin's (1935) dictum that behavior is a function of the interaction of person and environment, much attention has been given to the importance of the learning environment in the cognitive and affective development of college students (Griffith, 1981; Knepelkamp, 1975; Perry, 1970; Sanford, 1962). Lewin (1936) developed a set of concepts to represent and examine the mutual dependence of persons and environments in specific situations. He conceptualized behavior, or any kind of mental event, as the resultant function of forces acting upon individuals and their environments at any particular moment. Thus, forces (f) acting on persons (P) and on their current environment (E), would determine their behavior (B), or $B = f(PE)$ (Lewin, 1936, p. 12). The direction and magnitude of the forces determine the direction and speed at which an individual moves toward any goal. Lewin (1935) called the forces "vectors" (p. 91). The individual's psychological "life space" (Lewin, 1936, p. 11) represented the totality of the forces affecting persons and their environment. Vectors directed towards the achievement of a desired goal were called driving forces. Vectors which opposed the driving forces were called restraining forces. The magnitude of the forces could change at any time. In general, an individual sought the stability of counterbalancing forces to avoid or resolve the tension of contrary forces in the force field. If change in either the driving or

restraining forces could be effected, the individual would seek a new state of equilibrium by moving in the direction of change (Shipp, 1978).

Lewin's conceptual formulations were used by Harry Miller (1967) to build a motivational theory of adult participation in education. Miller postulated that positive and negative forces, when applied to the adult learner's situation, produced a motivational force. He used Lewin's (1947) force field analysis and Maslow's (1954) hierarchy of needs to explain how socioeconomic status and participation in education were inevitably related. Miller theorized that members of the lower classes would be interested in education that met survival needs such as job training, while the upper classes, having fulfilled their lower fundamental needs, would seek education that led to fulfillment of the higher human needs for recognition, achievement, and self-realization. Miller's theories were borne out in studies of consumer characteristics and interests in education (Carp et al., 1974; Cross, 1979a; Johnstone & Rivera, 1965).

For Kjell Rubenson (1977), a Swedish educator, the positive and negative forces affecting an adult's participation in education were internally perceived expectations. The individual had to experience a two-fold motivational force, the expectation to achieve success in the educational activity and the expectation that being successful in the educational activity would have positive consequences. Rubenson postulated that if either force were not present, the individual would not move toward the educational goal. For him, the removal of external barriers to education such as financial assistance, would have little influence in encouraging prospective students if they

could not perceive themselves as successful at the educational activity or if they could not perceive positive outcomes from their success. For example, completing a degree might lead to a well-paid position but it might also mean the loss of time with the family, or a promotion outcome might lead to ostracism by fellow workers.

Another theorist who used Lewin's concepts of positive and negative forces in the situation was Roger Boshier (1973). He focused on the role of congruence in the participation and dropout levels of adults in education. He postulated that participation and dropout could be understood as a function of the magnitude of the discrepancy between the prospective students' self-concept and important aspects of the educational environment. The greater the number of incongruities in the students' life space, self and ideal self, self and other students, and self and the educational environment, the greater the likelihood of either nonparticipation or dropout. He suggested that proper matching of adult students to educational environments was important. He also suggested that people who showed a high degree of incongruity between their selves and their ideal selves were likely to project their dissatisfaction with themselves onto their environment. For them, regardless of the kind of educational environment, dropping out was a predictable outcome.

The concept of matching and the mismatch consequences to enrollments have led some student services professionals to develop sophisticated admission screening tools. A developmental interview technique was developed by Griffith (1984) as a part of a grant-funded effort to find ways to identify optimal matches between students and educational environments. Griffith (1981), Sanford (1966), and others

had postulated that educational situations were conducive to development when the challenges and supports in the educational environment matched the ways in which the students made knowledge meaningful. Griffith (1984) expanded on Perry's (1970) hierarchical stage theory of intellectual development and proposed a formula to describe the forces at work in the students' life space. In it, student learning behaviors (A), for Perry's ways of acting, were described as a function of intellectual development (K), for Perry's ways of knowing, and the perceived nature of the learning environment (E). Thus, the resulting formula was $A = f(KE)$. The A component referred to learning behaviors of students responding to educational environments from particular points in their intellectual development. The K component referred to the stages of their intellectual development through which students viewed their educational environments. The E component referred to the learning demands perceived by students which included the role of teachers and peers and the structuring and sequencing of the materials of learning. Thus, students at different stages of intellectual development, as described by Perry's theory (1970), would be able or not able to cope with the demands of a particular type of educational institution. If the students' capabilities and ways of knowing were not matched to the style of teaching at the institution, dysfunction and/or dropout would follow. Conversely, a good match would tend to reduce attrition (Conyne, 1978).

Chickering (1969) used the concept of vectors to describe the following seven problem areas related to student development during adolescence and early adulthood: achieving competence, managing emotions, becoming autonomous, establishing identity, freeing

interpersonal relationships, clarifying purposes, and developing integrity. More recently, Lynch and Chickering (1984) reaffirmed the validity of the vectors, this time applying them to the older student.

They stated the following:

Although many may have mastered some of the vectors at a younger age, most adults are still dealing with existential issues of achieving competence, managing emotions, developing autonomy, and establishing new identities. They also seek freer interpersonal relationships, clearer purposes, and greater integrity. (p. 50)

Lewin's theoretical framework aids in the conceptual representation of the factors that affect students of any age as they deal with the driving and restraining forces in their psychosocial force field, as they pursue the desired higher education goal. In this study, needs expressed by students were perceived as restraining forces. Student services, if appropriate, were perceived as positive or driving forces and, if inappropriate, as negative or restraining forces.

Older students are besieged by a multitude of positive and negative forces. Motivation to learn is only one of the many forces in their learning environment. Some of the driving forces that may be found in the older students' situation may be the desire to achieve the enhanced income and/or the social status conferred by a degree, or the personal satisfaction of having achieved a difficult goal (McDermott, 1975). Some of the restraining forces that may be found in the older students' situation may be the need for social acceptance by nonstudent cohorts, family duties, economic pressures, or personal doubt of their ability or stamina to complete the program undertaken (Sewall, 1984; Shipp, 1978). According to Sanford (1962), college should be a developmental community that both challenges and supports

students. If the challenge or disequilibrium is too great, the individual retreats; if supports are too protective, the individual fails to develop. In his opinion, student personnel professionals must create a delicate balance of challenges and supports to encourage student development.

To provide a staying environment for the older students, administrators must understand the various forces that assist or oppose, either directly or indirectly, the older students' expressed desire for a college education. Some of the restraining forces are inherent to age status and age referent norms that qualify the environment of the adult. According to Lynch and Chickering (1984), increased sophistication about adult development theory will help professionals design environments responsive to adult learners.

Adult Development Theories

The foundations of the theories of human development were laid by psychoanalytically-trained psychiatrists and psychologists following the lead of Sigmund Freud. With the publication of Totem and Taboo in 1913, Freud (1913/1927) established the existence of common human needs by showing that the same psychological mechanisms could be found across cultures. The concept of the universality of the human experience was affirmed by Freud's (1923/1961) proposal of the existence of four stages of psychobiological development. These stages, oral, anal, genital, and phallic, encompassed life from birth to adolescence and unless they were traversed with a minimum of difficulty, individuals might become fixed at a particular stage and never be able to attain their full potential for development. In summary, Freud is

credited with the introduction of the following concepts: the universality of human needs, the sequential nature of stages in human development, and the deleterious consequences for the individual should there be interference with the stages of development.

Charlotte Buhler (1933) was the first researcher to adopt a longitudinal perspective through the technique of collecting and studying biographies. Her research focused on the value changes of individuals over the life span. Buhler is credited with identifying adult life patterns that are universally experienced, related to social role demands, and related to time of life in the life span. She is also credited with being the first researcher to identify growth and development occurring beyond the adolescent years.

Countering Freud's early libido theory in which he postulated that the release of tension was the motivating factor in human behavior (Bolgar, 1964), Karl Buhler (1927/1966) introduced the concept of "function pleasure" (Funktionlust) as the underlying motivational force in human behavior. He postulated that the creative pleasure experienced by individuals as they discovered and mastered their abilities constituted a basic need. In Buhler's view, this drive for competence underlay all human behaviors. Several more modern postulates, among them Maslow's (1954) self-actualization and Bandura's (1977) self-efficacy theories, would seem to have their roots in Karl Buhler's "function pleasure."

Eric Erikson (1958, 1969) originated the psychobiography as a tool for studying the interrelatedness of the inner and outer events experienced by persons across the life span. His contribution to developmental theory is two-fold. In his life stages theory, Erickson

(1950) proposed a universally experienced series of developmental stages, each presenting the individual with critical psychosocial conflicts. The eight stages are trust vs. mistrust, autonomy vs. doubt, initiative vs. guilt, industry vs. inferiority, identity vs. diffusion, intimacy vs. isolation, generativity vs. stagnation, and ego integrity vs. despair. Each crisis confronts the individual with the choice of mastery or regression. The outcomes build on each other progressively so that the failure to master one will affect the outcome of the subsequent confrontation. Interwoven through the psychosocial crisis theory is Erikson's second contribution. Every crisis is confronted in terms of the individual's identity as a competent person (1959). In his later work, Erikson (1978) affirmed the possibility of growth and development even in individuals of advanced age.

In Erikson's stages of development, the life span range and the importance of competence to personal identity, the influence of Freud, Charlotte Buhler, and Karl Buhler are clearly evident.

Bernice Neugarten's (1968) research with middle-age and older persons identified universally occurring phenomena that facilitate the understanding of adult behavior. Her research revealed the significance of time as an idiosyncratic perspective in the psychology of the adult. Neugarten found a change of time perspective occurring when adults realized that death was real and that they had a limited amount of time left to live. She also identified the social ordering of age status and age appropriate behaviors and the accompanying reinforcing social penalties for deviance. Her findings echoed the ancient writer of the book of Ecclesiastes (New American Bible, 1970), as follows: "There is an appointed time for everything, and a time for every

affair under the heavens" (p. 736, Ch. 3, v. 1), and a little later, "a time for every work and on every work a judgment" (v. 18).

Neugarten (1968) identified the interweaving of historical time and life time occurring in the context of socially defined time. From this perspective, a socially prescribed timetable orders the major life events establishing a time in the life span when men and women are expected to marry, a time to raise children, and a time to retire. She found that the age structure of a society, the internalization of age norms, and age group identifications operate a system of social controls which acts as prods or brakes on behaviors, i.e., driving or restraining forces. She found that individuals could readily describe themselves as being "early," "late," or "on time" relative to a life event. It was the timing of the life event, not its occurrence, that constituted the salient or problematic issue. Events that were "off time" were likely to represent a traumatic event which would be accompanied by feelings of failure, self-blame, shame, and other forms of intra-punitiveness. Older students attending college "off time" with their cohorts are subject to the psychological sequelae that accompany the "off time" life events (Schlossberg et al., 1978). Understanding the significance of a changing time perspective and the consequences of the "off time" events should inform and facilitate every institutional attempt to provide support services for older students.

In his research, Roger Gould (1972) delineated the manner in which the passage of time influences the experiences of the adult life span. He identified and discussed commonality of experiences in individuals of approximate age groups. He confirmed and expanded Erikson's stages of life postulates and Neugarten's findings relative

to the changing time perspectives and the secondary nature of age relative to time of life in the social context. Gould found commonality of experiences in seven phases-of-life age groups: 16 through 18, 19 through 22, 23 through 28, 29 through 34, 35 through 43, 44 to 50, and 50 or more. In each phase or age group were found specific themes relative to identity, autonomy, attitude toward work, family relationships, outer or inner orientation, and death. Gould recognized that where the commonality of human experience at each stage was true for the majority of people, an individual's total personality, lifestyle, and subculture affected the timing of the stage-related changes. His research led him to assert that growth in the adult years was a movement towards self-tolerance (1975). This movement or change was a complex process in many ways contingent on a person's ability to give up childhood's idealized view of adulthood. He proposed that the process of change could be facilitated by an active, thoughtful confrontation between persons and their perfectionistic tendencies, their feelings of "should," and the tightly circumscribed roles in their lives. Thoughtful confrontations throughout adulthood were necessary to win permission from oneself to continue developing.

Gould's findings are relevant to the predicaments faced by older students in higher education. The older student should benefit from counseling workshops and other student programs that were designed to facilitate the type of thoughtful confrontations proposed by Gould.

Each of the major theorists reviewed here was chosen to emphasize major aspects of human development and adult life stages in an attempt to present a cogent picture of what may be the older undergraduate's singular perspective. There are, however, commonalities in the

experiences of all undergraduates. To a greater or lesser degree, all students experience gaps in personal abilities, institutional services, and/or information about services that act as restraining forces in the pursuit of their academic, personal, and career/occupational goals. In this study these gaps or restraining forces are referred to as needs.

Student Needs

To be considered a need, something must be missing and also necessary to achieve some objective (Atwood & Ellis, 1971). Need is any potential or actual deprivation of a required or desired resource (Schwartz, 1975). Need is a lack in the organism which makes it dependent on its environment for satisfaction (Atwood & Ellis, 1971). The needs of students are symbiotically related to student personnel services. Student personnel programs grow out of students' needs. Needs are analyzed for validation. Student services' objectives are determined in harmony with and in support of identified needs (Larson, 1973). According to Maslow (1954), subgroups may share certain characteristics and tendencies to certain problems that would predispose them to experience common variations in the relative strength of their needs.

In varying degrees, then, younger and older students may experience a wide range of needs. While some needs may be experienced by both age groups, some others may be age or phase-of-life related. Most student needs can be subsumed into three general categories--academic, personal, and career/occupational concerns.

Academic Needs

A review of the literature indicates that students' concerns in the academic area have been assessed from several perspectives and with, at times, contradictory results. Grade point average has been examined as a predictor of success and/or as an indicator of educational advantage/disadvantage for younger and older students in higher education. In a nationwide survey of 4-year colleges and universities (Solmon, Gordon, & Ochsner, 1979), adult students over the age of 21 were found to have made lower high school grades and were found less likely to have pursued college preparatory programs than their younger counterparts. This would place the adult student at an academic disadvantage in the pursuit of a college education. In another study, however, Roelfs (1975) reported that community college students older than 21 displayed more self-confidence in their academic ability than the younger students at the same institutions.

Schultz and Ulmer (1966) compared the academic performance of daytime (younger) and nighttime (older) students in similar collegiate programs. The results of their study indicated that the older students achieved at a higher level than their younger counterparts.

And yet, other researchers (Fisher, 1969; Porter, 1970) have found that older students are likely to share common educational problems because many of them come to academe with poor educational backgrounds; inadequate study skills; deficient math, reading, and writing skills; insufficient orientation to college; and unrealistic expectations of progress.

In Geisler and Thrush's (1975) needs assessment of women age 28 or older attending the University of Wisconsin the findings indicated

that one of the most keenly felt needs was in the area of academic self-confidence. The other two areas of need identified by the women in this study were in the areas of personal and vocational concerns.

Personal Needs

The participants in the Geisler and Thrush (1975) study reported experiencing a lack of role definition, a lack of a sense of direction, and a lack of time. Other studies (Heddesheimer, 1976; Hoenninger & Skovholt, 1973; Krings, 1976) have confirmed that, for many adult students, maturity and life/work experience offer little protection from experiencing many personal needs while pursuing a college education. According to Gallagher and Demos (1970), adult students may experience a greater need for counseling than their younger counterparts.

Reentry into traditional collegiate academic environments engenders unique concerns for the older student. Some concerns are how they will fare in academic competition with younger students, how they will relate to faculty and younger students, how they will be perceived by faculty and younger students, and how the student role will impact on their other adult roles and responsibilities. Ferguson (1966), Hiltunen (1965), and others found that adult students worried about lack of time, energy level, academic performance, finances, and family responsibilities. Also, in assuming the student role, the older students face value differences that may cause conflict and anxiety. Glass and Harshberger (1974), in a theoretical analysis of the older student in traditional collegiate setting, focused on experiences that could be interpreted as value or status losses for

the older student. Youth might seem to be more valued by the institution while the adult's previous power and status, in either their work world or their community, might not be valued. These value differences may cause older students to experience uncertainties about their identities and to question their worth.

Contrasting the foregoing, studies conducted on older students attending nontraditional collegiate institutions found that those students were older (median age 36 to over 40); employed in professional, subprofessional, or technical jobs; had previously attended college; and were overall, highly successful as workers and as students (Lehman, 1975; Sosdian & Sharp, 1978). External degree and other nontraditional programs, however, seemed to be best suited for students who had clear educational, personal, and career goals; were self-directed; and had adequate learning and personal resources to draw on (Cross, 1981).

The older students in traditional undergraduate programs may not ask for or seek assistance as often as the younger students; however, when given the opportunity to express their needs, they present as many needs as the younger students (Hanson & Lenning, 1977; Roelfs, 1975; Waterhouse, 1978). However, some of their needs may be different from those of the traditional age students (Munday, 1976). One of the areas where younger and older undergraduates appear to be alike and different is in the saliency of their career/occupational concerns.

Career/Occupational Needs

According to many researchers (Boaz & Kay, 1980; Browne, 1979; Calvert, 1979; Gilbert, 1979), mid-life adults attend college for career and job related reasons. A number of needs assessment studies (Fauquet & Edgemon, 1978; Geisler & Thrush, 1975; Sherer et al., 1978) indicate that career counseling assistance is highly desired by the older students. Older students, more so than their younger counterparts, view education from a practical rather than academic perspective. They are more interested in the immediate application of knowledge (Knowles, 1970) and in the pragmatic rather than the theoretical aspects of education (Johnstone & Rivera, 1965). According to Cross (1981), the older students' pursuit of a college degree is strongly associated with career issues.

In her doctoral research on younger and older undergraduates at the University of Georgia in Athens, Kasworm (1977/1978) found no differences in their reasons for attending college. Both age groups of students wanted to prepare for a career and to improve themselves. She did not find differences between the age groups in the students' perceived need for career/vocational counseling services. In another needs assessment study of undergraduates at the University of Georgia (Weissberg, Berentsen, Cote, Cravey, & Heath, 1982), students of all ages expressed stronger needs in the career development area than in either the academic or personal areas.

Lewicki's (1983) doctoral research findings indicated that, within the younger student group, there were differences in the importance given to career/occupational services. Freshmen did not seem to be as interested as juniors and seniors.

It appears, from the review of previous studies, that career/occupational services are one area of student needs where the older student is not reticent to ask for services.

Student Services

Student services play an important role in student development (Hallenbeck, 1978). According to Astin (1980),

The benefits of college are directly proportionate to the student's degree of involvement in the educational experience. Involvement can be manifested in various ways: how much time students spend on campus, how much they study, how much they participate in extracurricular activities, and so forth. (p. 5)

Older students, however, because of the multiplicity of adult roles in their lives, may have less time to devote to their student responsibilities and to on-campus activities. They may not have access to daytime student services, or, they may be ill informed or not aware of available services (Heinlein & Byers, 1981). Thus, because of their particular time-of-life circumstances, older students may not be able to benefit fully from their college experience unless student services professionals target their expertise to reach and involve this student population.

Several researchers (Carney & Barak, 1976; Lewicki, 1983; Lewicki & Thompson, 1982; Lynch & Sinnett, 1976; Pinskey & Marks, 1980) have stressed the importance of assessing students' awareness of, utilization of, satisfaction with, and perceptions of college services.

Awareness of Student Services

Access to services is predicated on awareness of the existence of those services. The importance of the role of information services in the education of older students was stressed at UNESCO's International

Symposium on Ways and Means of Strengthening Information and Counseling Services for Adult Learners held at the University of Southern California in 1977 (UNESCO, 1978). Information was deemed to be essential to the effective working of any adult education program and necessary to sustain adults who were already studying and who still needed to take the best advantage of the educational experience. Informing the adult learner of available student services is fundamental to their capacity to make effective use of the institution. Even the most effective services cannot help students who are unaware or misinformed about existing services (Tryon, 1980). According to Arbeiter (1978), surveys of adult learner needs consistently indicated a desire for information about services. In a needs assessment study of adult students attending the University of New Brunswick, Heinlein and Byers (1981) found that 58% of the respondents were not aware that they had a faculty advisor. Less than half of the respondents were aware of the existence of any of the other student service organizations available on campus, with the exception of student health services. The respondents also expressed interest in obtaining information about what was available on their campus in the way of student services, courses, library, and social activities.

At the University of Central Florida, surveys conducted by student government (Marrero, 1983) found that few students were aware of the many services sponsored by student government. In a study of younger and older women students at another 4-year university, Keller and Rogers (1983) found that while more younger women were aware of the existence of the women's resource center on campus, more of the

older women knew the nature of the services available through the center.

In a study of younger and older commuter university students, Mardoyan, Alleman, and Cockran (1983) found that 43% of the younger and 50% of the older students were not aware of the existence of counseling services on campus, and approximately 66% of all the students surveyed did not know how to obtain counseling services at their university. In a study of resident students, Lynch and Sinnett (1976) reported that the learning skills center was known to only 37.1% of the students (133) interviewed.

Lewicki and Thompson (1982), in a survey study of lower division undergraduates, not differentiated by age, at two 4-year colleges and one 2-year community college, reported finding high levels of awareness but low levels of utilization of student services. More than 80% of the respondents indicated being aware of 14 of 22 services available. Usage of services, however, was reported by less than 50% of the same students.

Considering that the foregoing studies differed by institutional size, mission, and clientele sampled, the reported lack of awareness about existing services appears to be a common student problem that transcends institutional diversity.

Assessing the levels of use and satisfaction with student services is one method of evaluating the quality of student services on campus, which is an important part of the ongoing institutional self-evaluation and planning process.

Use of and Satisfaction with Student Services

There is cause for concern when students who express a need for services are unaware of available services (Tryon, 1980). Concern deepens when students who express a need for services and are aware of available services do not use them (Lewicki & Thompson, 1982). Several studies have linked underutilization of available student services with either a lack of satisfaction with those services or misperceptions of the nature of the services.

Lynch and Sinnett (1976), in their study of resident students at a large midwestern university, reported that though the students were aware of the existence of professionally staffed services on campus, they preferred to use paraprofessional and crisis-oriented services. The researchers conjectured that students might have felt that the professionally staffed centers were for students with severe problems.

In a study assessing the visibility and reputations of existing mental health services on campus in the larger community, Hanggeler, Harbin, and Sallis (1982) determined that the students who knew of those services evaluated them favorably but preferred to use services staffed by nonprofessionals. The researchers postulated that this pattern was not the result of confusion about the nature of the services; rather, it was the result of the relatively low reputations of help sources that were staffed by mental health professionals.

In the Lewicki and Thompson (1982) study, where less than 50% of the students who were aware of 14 of 22 services had used them, those who had used them indicated only a moderate degree of satisfaction with the services. A low degree of satisfaction was reported for parking facilities. In addition, a moderate to low degree of

satisfaction was reported to questions relative to the overall quality of student services on campus and to whether the respondents felt that student services provided significant personal development programs.

Kasworm's (1977/1978) study of younger and older undergraduates at the University of Georgia indicated significantly less usage and lower levels of satisfaction by older students relative to orientation, health services, student activities, and academic advisement. While Kasworm conceded that services readily available in the larger community were of little interest to older students, i.e., on-campus housing, religious centers, or health services, she maintained that services such as orientation and academic advisement were not well used by older students because they were perceived to be solely oriented to the needs and desires of younger students.

Similarly, in a study of women students age 28 and over at a large university, Geisler and Thrush (1975) reported finding differences in the respondents' expressed needs for services and their use of those services. Vocational guidance was needed by 21%, yet, only 7% had sought vocational guidance. Personal guidance was needed by 16%, yet, only 5% had sought that service. Those who had sought counseling had turned to their academic departments and avoided the existing specialized services. Because 64% of the women responded positively to the possible establishment of an office of continuing education, the researchers surmised that the respondents perceived the usual campus counseling facilities to be ill-suited to them as adults.

Similar findings have been reported in parallel studies on black students' use and satisfaction with student services. Benedict, Apsler, and Morrison (1977) suggested that underutilization of

counseling services by black students was due to their lack of awareness of the availability of services, inaccurate perceptions of those services, and their belief that university services were directed toward the white students on campus.

Clearly, awareness of student services for particular student populations affect usage of those services. Ultimately, however, awareness, perception, and usage levels constitute a consumer assessment of the quality of those services.

Rationale for Treatments

Information Dissemination as Intervention Strategies

Several studies have addressed the importance of the relationship between awareness and/or utilization of services and the type of information dissemination strategies used by particular student services.

Lewicki and Thompson (1982) asserted that student services professionals needed to become personally involved in any attempt to publicize student services. In their opinion, personalization in the dissemination of information about student services would help to dispel misperceptions about those services. According to Cross (1979a), in addition to impersonal information channels, older students wanted personal sources of advice.

Keller and Rogers (1983), in their study of younger and older women students' use of the campus women's center, discovered that the center's newsletter was read by a majority of both age groups. They also found that the center's radio spots, aired at peak commuting times and during the lunch hour, attracted a greater audience among

the older women. The researchers emphasized the advantages, for the clientele and for the service providers, of identifying services that have relevance to the particular populations served and the best means of communicating with them.

Special public relations efforts may be necessary to reach older students (Arbeiter, 1980). Heppner and Olson (1982), in their descriptive study of how a college career center expanded to meet the needs of adult students, reported advertising their adult services in city newspapers, placing notices in laundromats, and making full use of public service announcements on radio and television.

Another effort to reach the older commuter student was reported by Rogers and Hickey (1983). In order to promote the services of the testing and psychological services on campus and after determining the day and times when the greatest number of students would be congregated on campus, they organized and promoted a lecture/program series where popular psychological topics such as psychic phenomena, hypnosis, and dream analysis were presented. Other programs featured films, personal development, and informational presentations. The programs were designed to inform and to entertain. Some nationally well known speakers were obtained. At each of the programs, the testing and counseling services available at the university were described and students were invited to avail themselves of the services. As a result of this effort, the first year of the lecture/program series presentations resulted in approximately a 40% increase in counseling contacts for the testing and psychological services.

Though targeted to professionals and paraprofessionals, similarly successful efforts were reported by Lynch and Sinnett (1976). After determining that the services provided by the learning skills center were poorly utilized by resident students, they communicated their findings and implications to professionals and paraprofessionals on campus. The findings were published in an in-house report series. Copies were provided to key administrators, to the director of each campus student affairs service, and to orientation and housing personnel. In addition, research findings were discussed at a seminar where many of the key personnel already mentioned participated. Later, a presentation of the findings was made to the university residence hall staff. Largely as the result of this effort, the learning skills center was reorganized and a graduate assistant was assigned on a one-half time basis to coordinate publicity efforts to faculty, advisors, and students. The following semester the number of students served increased over 600%.

In a review of studies assessing the needs of potential adult learners, Cross (1979a) noted that the need for information about educational opportunities and lack of awareness or confusion about the functions and services of counseling/advising collegiate centers seemed to transcend region or locale. In some of the studies she reviewed, advice was solicited from the student participants about effective methods for disseminating information. The results indicated that the best method might vary with locale. According to Cross, lack of information about existing services becomes an exclusionary barrier for older students because lack of information

prevents many adults from knowing which barriers are real and which no longer exist.

Assessing the effectiveness of various means of communicating information about existing student services is essential to the welfare of students and to the success of services or programs targeted to specific student populations.

Information as a Marketing Intervention

The field of marketing applied to higher education provides a means by which institutional leaders can define who their consumers are, assess their needs and wants, and develop and deliver programs and services to serve those needs (Kotler & Goldgehn, 1981). Marketing offers the potential for increasing enrollments, reducing attrition, and making college services more responsive to the needs of consumers (El Sharei, 1979; Leach, 1979; Rink, 1979).

The marketing process provides a conceptual framework for facilitating a college-wide attitude of responsiveness to student needs and the technology to systematically order these responses (Leach, 1978). According to Kotler (1980), marketing is defined as

the analysis, planning, implementation, and control of programs designed to create, build, and maintain mutually beneficial exchanges and relationships with target markets for the purpose of achieving organizational objectives. It relies on a disciplined analysis of the needs, wants, perceptions, and preferences of target and intermediary markets as a basis for effective product or program design, pricing, communication, and distribution. (p. 22)

Marketing interventions have been applied successfully to counter underutilization of college facilities and programs. Cohen and Atherton (1981) described the underutilization of facilities and the lack of services to potential students caused by the usual

morning/evening scheduling pattern at a community college. Using a marketing approach, the "afternoon curriculum" was developed and successfully promoted. Fast (1979a, 1979b) described various marketing approaches taken by the mathematics department at a community college in Oregon. Marketing strategies and positive media coverage succeeded in changing the image of the math department from threatening to friendly, with a consequent increase in math enrollments.

Marketing invites change (Keim, 1979). Information brings about change in an individual's assumptive world, defined by Cantril (1950) as the sum total of previous experiences which allow the self to recognize and predict characteristics and utility of things, persons, or events in the environment. Information affects the way the self interacts with its life space (Lewin, 1935). According to Parkes (1971), the life space is constantly changing. Novel stimuli, combinations of events and unique communications from others, effect changes which either fulfill expectations and require little change in the assumptive world, or require abandonment of one set of assumptions and the development and restructuring of a new set of assumptions. Beliefs, attitudes, and behaviors may change in response to information.

The concept of self in the life space or organism-environment interaction has come to be an important influence in the conduct of student services. According to the ecological approach, campus conditions, programs, and services must be organized and staffed with student personnel professionals who can be responsive to the needs of students and to the changing composition of the student population (Nayman & Patten, 1980). Determining and meeting consumers' needs is

as much a basic premise of the student services ecological perspective as it is a definition of marketing (Krachenberg, 1972). Applying the principles of marketing to higher education involves identifying the potential student-consumers and informing them of the availability of the programs and services they need (Berner, 1980).

Only recently have student services personnel begun to acknowledge the need for interpreting, promoting, or marketing their services (Nayman & Patten, 1980). Barton (1978) pointed out that administrators are often more assertive and effective in communicating their academic programs and services to outside groups, such as foundation donors and alumni, than they are to their own students. However, informing students of available services is fundamental to their capacity to make effective use of the institution.

In marketing parlance, segmentation is the process by which a relatively homogeneous segment of the population is identified and selected as a market target to be reached with a distinctive marketing strategies mix. It is a process which facilitates the efficient dissemination of specific information about programs and services (Keim, 1981). To exemplify, at De Anza College (Charles, 1980) numerous services and programs to meet the needs of disabled students were provided. Over 45 procedures were established to disseminate information about these programs to De Anza students and to community members. These procedures included the use of admission forms, brochures, newsletters, orientations, special classes, the college catalogue, class visitations, public service announcements, staff appearances on radio and television, cooperative activities with area parks, presentations at professional association meetings, visits to

high schools and local businesses and industries, and special mailings. Clearly, student services professionals at this institution applied the marketing concept to student personnel services. They identified the disabled student as a target segment of their student population, as a potential consumer of their services, and measures were instituted to meet their identified need for information and support.

Informational Groups as Treatment Interventions

Traditionally, information about student services has been disseminated through orientation programs. Orientation sessions have used a variety of instructional techniques or tools: slide shows, video cassette modules, large orientation group sessions, group tours of college services, small seminar groups, brochures, simulation games, telephone hot lines, and individual advising. Orientation programs have been led by faculty, advisement staff, or students (Beck, 1980; Harris, 1980; Howe, 1978; Miles, 1980/1981; Miles & McDavis, 1982; Nathan, Joanning, Duckro, & Beal, 1978; Spooner, 1981).

Some studies have measured changes reported by segments of the student population attributed to specific group information dissemination interventions. Kramer and Washburn (1983) conducted a survey of randomly selected freshmen and transfer students to determine what effects information disseminated through a traditional orientation program would have on the students' needs expressed before and after the orientation experience. The researchers found that though the students consistently ranked and perceived academic and career planning needs as most important both before and after orientation,

the overall perceived need level of students significantly decreased as they went through the orientation process. This decrease was statistically significant at the 0.01 Alpha level. Thirty-nine out of 40 needs showed decreases; 19 of these decreases were significant at the 0.05 Alpha level.

Though there have not been similar studies conducted on the older undergraduate student population, other nontraditional undergraduates have been involved in research on the effects of information as treatment interventions. An experimental study was conducted by Miles (1980/1981) at the University of Florida in which she examined the effects of four types of information dissemination approaches on the information levels and attitudes of disadvantaged black freshmen towards the university's counseling center. Participating students were randomly assigned to one of four groups.

Group 1, the control group, participated in a traditional large group orientation in which the services of the counseling center were explained by a counseling center representative. These students also received the traditional counseling center brochure in their orientation packets. Students in Group 2 participated in the traditional large group orientation, received the traditional counseling center brochure, and were sent a personalized letter from the director of the counseling center welcoming them to campus. The students in Group 3 participated in the traditional large group orientation, received the traditional counseling center brochure, were taken on a tour of the counseling center, and participated in one small group orientation session in which a black counselor explained the services provided by the center as outlined in the brochure. The students in Group 4

participated in the traditional large group orientation session, received the traditional counseling center brochure, and received an individual orientation in which a black counselor explained the services offered in the center as outlined in the brochure. A post-test and follow-up test design was used.

Miles found that the small group approach was the most effective and efficient method of informing the students of counseling center services. A personal interview with a counselor had positive effects on the students' attitudes toward using the counseling center in the future. In addition, a tour of or a visit to the counseling center increased the participating students' knowledge of counseling center services. The value of the personalized approach, i.e., the small group seminar, the group visit or tour of the services, and/or individual interviews with a student services counselor, was echoed by Lewicki and Thompson (1982) in their study of awareness, utilization, and satisfaction with student services among freshmen and sophomores. The researchers asserted that student services personnel needed to become more involved in publicizing student services. In their opinion, increased personalization would result in better informed students and more knowledgeable students would lead to greater usage of student services.

Mayes and McConatha (1982), in their survey study of the relationship between student needs and student services, concluded that every effort should be made to inform, not only students, but also the faculty and staff, of available services and programs at their institutions. The researchers also recommended separate

orientation type programs to acquaint students with the availability of particular services.

Separate orientation/information dissemination activities for older undergraduates have been instituted at the University of Florida, Memphis State University, Webster College, Birmingham-Southern College, East Arkansas Community College, and others (Lynch, Doyle, & Chickering, 1984). No data based studies were available on the effects of these innovative programs. However, it is clear that for these institutions, the undergraduate education of older persons has become part of the institutional mission. Servicing older students is perceived to provide long-term benefits to the student/alumni and to the institution (Fauquet, 1983/1984; Kotler, 1975).

Informational Group Approaches for Older Students

Informational group interventions used with older students should take into consideration theories and variables consistent and appropriate to the target population and to the objective or purpose of the group modality being used. According to Wilbur, Wilbur, and Betz (1981), these variables involve knowledge, skills, procedures, and techniques based on learning theory, developmental theory, and psychological/personality theory. Traditional orientation programs do not take into consideration and are not designed to fit the learning, developmental, and/or the personality needs of older students. Shertzer and Peters (1968) defined orientation as "a process wherein a new group of individuals become better acquainted with an older group's traditions, purposes, rules, regulations, policies, facilities, and special services" (p. 57).

For older students, becoming acquainted with the younger students' traditions, purposes, rules, regulations, policies, facilities, and special services may be either irrelevant or offensive. The traditional group medium, however, provides a viable basic structure that can be modified and applied in a variety of ways appropriate to the older student population (Conyne, 1982). Group techniques are effective ways to disseminate information needed by students who are confronted with adjustments to new or different surroundings (Shertzer & Peters, 1968).

Group work encompasses the familiar processes of group guidance, counseling, and psychotherapy. It can also include T-groups (Lewin, 1944), sensitivity groups, encounter groups, personal growth groups, microlabs (Anderson, 1981), and small discussion groups or buzz sessions. Dies (1985) described the value of time-limited intensive interactional groups. In his view, focused short-term small group procedures could promote intensive participant interactions while focusing on information-giving task objectives.

According to Shertzer and Peters (1968), buzz sessions constituted a method of increasing individual participation in large group discussions. The buzz session is a short-term small group discussion technique that is best suited to uncovering questions or problems, collecting suggestions, and/or gathering information while at the same time giving no assurances that the problems or subject under discussion will be solved or fully understood.

The use of buzz sessions as part of orientation or information dissemination programs has not been documented. However, their short-term, nonproblem-solving nature provides an ideal medium to engage

older students in discussions about their student needs, their perception of the educational relevance of existing student services, and to impart pertinent information in response to their concerns. In addition to a small group lecture and tour approach, in this study the effectiveness of intensive, time-limited, interactional buzz sessions as an informational group approach for orienting older students to selected student services was explored.

According to Kauffman (1984), student services professionals must provide ways to involve all students in the university community. Increasingly, older students comprise a significant portion of the new diversity of students in higher education.

Demographics

Changes in the general population and in the American society have affected the present composition of the college student population. In addition, changes in the patterns of college attendance have helped to define the new demographic realities of the college student population.

The Graying of America

According to statistics published by the U.S. Bureau of the Census (1984), the number of Americans under 25 years of age has declined steadily since 1965. The number of 25-44-year-olds has steadily increased. The number of 45-64-year-olds and older has declined slightly since 1970 while the number of 65-year-olds and older has increased steadily. Statistical projections indicate that the number of Americans under 25 years will continue to decline while the number of persons 25 years of age and over will continue to

increase through 1990. The number of persons 45 through 64 years of age will increase sharply after 1990 whereas the number of 65-year-olds and older will continue to increase gradually through the year 2000.

Participation in Higher Education

Changes in the American society have created new patterns of participation in higher education. In 1979, the U.S. Bureau of the Census (1979a) noted that the decline in college enrollments from 11.5 million in 1977 to 11.1 million in 1978 occurred at a time when the number of persons of traditional college age had not decreased. It also noted that one-third of all students enrolled in higher education in 1978 were 25 years of age or older. In other studies, the trend among traditional age students to delay college attendance for several years after high school graduation (Dearman & Plisko, 1979), and the increase in the number of traditional age students opting for part-time college attendance (Grant & Lind, 1979) were noted. Another significant trend has been the increase in the number of women, age 22 through 34, attending college. According to the U.S. Bureau of the Census (1979a), between 1970 and 1978 the number of women age 20 through 21 years old attending college increased 41.6%. That increase continued to rise to 209.1% among women age 30 through 34 years old. The increase for men was steady but not as dramatic (see Table 2-1).

Demographic Correlates of Adult Participation in Higher Education

Several researchers have attempted to determine the role of demographic factors such as age, sex, race, educational attainment, socioeconomic level, and/or rural/urban residence as predictors of

Table 2-1

Percent Change in College Enrollment by Age Groups 1970 to 1978

	Male	Female
14-17 years old	-18.5	+ 29.2
18 and 19 years old	+ 3.3	+ 20.8
20 and 21 years old	+11.0	+ 41.6
22-24 years old	+14.0	+ 70.4
25-29 years old	+34.8	+117.3
30-34 years old	+85.2	+209.1

Note. From Current Population Reports by U.S. Bureau of the Census, 1979b, Washington, DC: Government Printing Office.

participation in education for people older than traditional age students (Carp et al., 1974; Goodrow, 1975; Jackson & Wood, 1976; Uphaus, 1971). In a comprehensive study of survey data collected for the National Council on Aging by Louis Harris and Associates (1975), Graney (1980) examined data from a national random sample of 4,254 people in four adult age categories--youth (18 through 24 years), young adult (25 through 39 years), middle aged (40 through 54 years), and older (age 55 years and over)--with regard to enrollments in higher education. He found that age and prior educational attainment were the demographic characteristics that showed the largest correlations to enrollment. Older people were less likely than younger people to be enrolled in educational endeavors. The places of enrollment varied from age to age category. According to Graney, the Harris sample statistics indicated that college or university settings accounted for 68% of youth enrollments, 60% of young adult enrollments, 41% of middle age enrollments, and 30% of the older group enrollments. More enrollments were found among males except for the older age group where female enrollments predominated. There was a significantly lower enrollment rate for rural residents across all age categories. No significant correlation of enrollment was found for race except among young adults where a slightly higher enrollment rate among whites was found. The chief correlate of enrollment across all age categories was prior educational attainment. Graney concluded that, among older people, the "young-old," better educated, urban, healthy, financially secure, and generally active people with youthful self-concepts were more likely than others to be enrolled in further education.

Prior educational attainment had also been identified by Cross (1979a) as an important predictor of participation in education for adult learners. After reviewing several state, regional, and national studies about adult learners' interests, characteristics, and needs, she concluded that regardless of locale, adult learners' interest in further education was directly related to previous educational attainment. Cross also found that adults expressed less interest in education with advancing age. Uphaus (1971), however, found that 71% of an Arizona sample of 102 retired people aged 60 and over had actually participated in some form of post-retirement education. The Uphaus sample was composed entirely of college graduates.

The demographic data presented in this section indicate that the general population continues to shift to an older society while the number of 18-year-olds continues to decline. These population trends have affected higher education enrollment patterns. The decline in the enrollments of 18 to 22-year-olds has been aggravated by delayed enrollment and part-time attendance, nationwide trends found among this age group. Conversely, the number of adults, women in particular, enrolled in higher education has continued to increase (see Table 2-2).

According to Brodzinski (1980), the old image of a college student, i.e., 18 to 21 years of age, attending full time may only be valid in 4 out of 10 cases. In his opinion, student personnel professionals need to note that older people may be the only growth market available for higher education. Wise (1961) foresaw the growth of the older student population and wondered if student personnel professionals were prepared to explore the opportunities for creative

Table 2-2

Enrollment in Institutions of Higher Education by Sex, Age, and Attendance Status, 1975 to 1982, and Projections, 1987 and 1992

Sex and Age	Number (1000)				Percent Part Time			
	1975	1982	1987	1992	1975	1982	1987	1992
Total	11,185	12,426	12,136	11,810	38.8	41.9	45.9	47.9
Male	6,149	6,034	5,918	5,715	36.1	37.8	41.6	43.4
14-17 years	126	107	92	80	13.5	15.0	13.0	13.7
18-19 years	1,397	1,295	1,138	1,026	9.2	10.2	10.8	10.5
20-21 years	1,245	1,287	1,061	1,029	15.4	16.1	15.4	15.3
22-24 years	1,048	1,138	1,086	972	34.5	37.2	34.8	34.8
25-29 years	1,123	1,055	1,152	1,057	57.8	57.7	59.6	59.7
30-34 years	557	559	663	711	67.0	68.9	72.5	72.6
35 years and up	654	590	724	838	76.8	85.8	85.2	85.3
Female	5,036	6,394	6,218	6,095	42.1	45.8	50.0	52.2
14-17 years	152	126	122	105	12.5	5.6	9.0	8.6
18-19 years	1,388	1,432	1,234	1,108	10.6	14.5	12.4	12.5
20-21 years	988	1,253	1,016	980	19.8	19.8	19.0	19.1
22-24 years	706	943	852	762	54.4	45.8	46.7	46.7
25-29 years	651	939	965	876	66.5	65.8	68.4	68.4
30-34 years	410	703	769	815	76.8	82.2	80.9	80.9
35 years and up	730	998	1,260	1,449	85.6	83.7	85.1	85.1

Note. Adapted from U.S. National Center for Education Statistics chart published by the U.S. Bureau of the Census (1984, p. 150).

innovation that the then seminal changes in student population composition would eventually demand. According to Brodzinski (1980), the day of the adult in higher education has arrived. In his opinion, student services professionals must, for institutional and professional survival, acknowledge the new demographic realities of the college student population.

Assessing the Needs Assessment Function

According to Atwood and Ellis (1971), a needs assessment is the first step in program development. The scope and magnitude of the needs assessment is determined by the purpose for which the collected data will be used (Klein et al., 1971; Pennington, 1980). According to Cross (1979b), needs assessments should provide more than a description of what people say they need or want. Needs assessments should collect information about how much people know about the existing services and also how the service providers might go about reaching the prospective clientele with information and better services.

Needs assessments have the greatest utility when they are viewed as a problem-focused strategy in the institutional planning process (Kuh, 1982). For student personnel professionals the foci of needs assessments are individuals, groups of students or staff, and/or the organization or the institution. To be useful, needs assessment data must be comparable to a standard, an external criterion (Pennington, 1980). Thus designed, needs assessments are valuable decision making tools for administrators and student services professionals concerned

with the evaluation of institutional or organizational outcomes (Mines, Gressard, & Daniels, 1982).

Some Drawbacks

Needs assessments are vulnerable to the weaknesses of the survey method. According to Cattell (1974), the central problems in the use of questionnaires are that people do not know themselves (illusion), and that, if they did, they would not tell the truth (faking). Social desirability factors compound the illusion effect to render motivational measures, such as needs defined as deficiencies, particularly vulnerable to faking or denial. Similarly, service delivery systems leaders may be reluctant to uncover client needs that would expose inadequacies or inequities in the system. Griffin (1973) and Myers (1979/1980) expressed concern that needs assessments conducted by leaders of service delivery systems would assess the known needs to justify continuance of the existing services or programs.

Cross (1979b) discussed a different kind of caveat. She noted that needs assessments are based on the current perceptions and understanding of the respondents who may be better at telling what is than what might be. In her opinion, respondents have difficulty relating to new concepts and new ideas presented in needs assessments. While Cross noted that most new services are "dreamed up by imaginative educators" (p. 12), Brodzinski (1979) stressed the importance of "futurizing" in student personnel work. In his opinion, the profession needs practitioners who are willing to assume the futuristic role "to champion innovation and modernization" (p. 74) in education.

Intrinsic Value of Needs Assessments

Beyond purpose and/or the value of expected outcomes, needs assessments conducted in an open and collaborative manner provide the participants, i.e., students, staff, and administrators, with opportunities to learn more about themselves and their contributive roles in the institution. As a result, groups and individuals may experience increased self-esteem and clarity of purpose which in turn may serve to improve the quality of their contributions to the educational and personal environment of the institution (Kuh, 1982).

Summary

Student personnel services aimed at recruiting and retraining older students must reflect an understanding of adult developmental theory and the great variety of positive and negative forces interacting during the different phases and stages of the adult life experience. Lewin's force field theory provides a framework for conceptualizing the interplay of the driving and restraining forces in a student's life. Gaps or deficiencies in personal abilities/resources, institutional services, and/or information about services act as restraining forces in the students' movement towards the completion of their educational goals.

A review of the literature revealed the salient needs experienced by older students. In the academic area, older students, in general, were hampered by poor educational backgrounds; inadequate study skills; deficient math, reading, and writing skills; insufficient orientation to college; and unrealistic expectations of progress. In the personal needs area, poor academic self-confidence was compounded

by a lack of role definition, lack of direction, lack of time, worry about finances, concern about family responsibilities, low energy level, doubt about acceptance by younger students and faculty, and perceived value and/or status losses when traditional institutions did not value the adult students' previous job or community related power or status. In the career/ occupational area, the literature revealed that older students were not reticent to express their need for career guidance services. Older and younger upper division students expressed similar levels of career related needs while younger lower division students did not express much interest in these services.

A review of student awareness, use and satisfaction with, and perceptions of student services revealed that older students, in general, were ill informed about existing student services. In many studies, low utilization and satisfaction levels were attributed to students' perceptions of existing services as being solely oriented to the needs and desires of younger students and ill suited to the needs of older students as adults. In several studies, personalized promotion of student services to older students as well as to the other institutional staff and faculty resulted in considerable increases in the use of the targeted services. Nontraditional means of promoting campus services, e.g., the electronic media, notices in laundromats, and community bulletin boards, were successful in reaching older students.

The marketing field provided a conceptual framework or perspective from which to approach the study of the effectiveness of different methods of communicating information about student services to segments of the student population. Marketing, as applied to higher

education and student personnel services, considered the student as consumer and the institution as purveyor of needed services. Determining and meeting the needs of the student-consumer, within the institutional mission, rendered long-term benefits to both parties. Though leaders in several colleges and universities initiated model information dissemination programs for adult students, no data based studies had been published on the effectiveness of these services. The studies reviewed in this section showed that personalized delivery of information about student services to other nontraditional student segments, i.e., small informational groups, tours or visits to student services offices, and/or individual interviews with student services personnel, increased the students' level of knowledge about the services and the likelihood that they would use the services in the future. Another study showed that the levels of need expressed by students significantly decreased after participating in small informational group orientation programs.

While small informational groups were presented as viable treatment interventions for students of diverse backgrounds, the buzz session, a short-term small group discussion technique, was described and proposed as an information dissemination approach particularly well suited to the orientation needs of older undergraduates.

A review of demographic projections revealed that the decline of the number of 18-year-olds in the population, coupled with delayed enrollment and part-time attendance trends have changed the composition of today's undergraduate population in American colleges and universities. It was noted that older people may be the only growth market available for higher education.

The use of needs assessments in educational research was reviewed. Needs assessments were found to be valuable not only in collecting basic information but also as institutional evaluation, decision making, and planning tools. In addition, participation in the needs assessment process was seen to provide the participants with opportunities to learn more about the institution, about themselves, and about their contributive roles in the institution.

To conclude, a review of the literature confirmed the older undergraduates' need and desire for adequate and timely information about academic and other student services. Information dissemination strategies used with nontraditional student populations were described. The review of the literature indicated an unmet need for an evaluation of methods of communicating information to older undergraduates.

CHAPTER III METHODOLOGY

The research design, null hypotheses, population and sample, recruitment and training of facilitators, selection of student services, treatments, development of the instruments, analysis of the data, and limitations of the study are described in this chapter.

Research Design

The effectiveness of two methods of communicating information about student services to older undergraduates was evaluated in this study. An experimental, pre- and posttest, control group design was used. The independent variable was the specific information about selected student services presented to participants of group 1 in a lecture and tour of services format and to group 2 through interactive, small group activities. Group 3, the control group, did not receive the specific information about the selected student services. Instead, group 3 received information about student government and the programs and activities council in a lecture and interactive group format. The dependent variables were (a) the students' knowledge about selected student services (counseling/testing, placement, financial aid, and recreational); (b) the students' needs in academic, career/occupational, and personal areas; (c) the students' perceptions of adequacy of the institutional patterns of information dissemination; (d) the students' projections of plans to use

the services; (e) the students' perceptions of the educational relevance of student services; (f) the students' perceptions of the readiness of student services to serve students of all ages; and (g) the levels of student awareness, use, and satisfaction with student services eight weeks after the treatments.

Null Hypotheses

Null Hypothesis 1. There are no gain score differences in the levels of knowledge about specific services (counseling and testing, financial aid, placement, recreational) among the three groups after treatment.

Null Hypothesis 2. There are no gain score differences in the levels of expressed needs (academic, career/occupational, and personal) among the three groups after treatment.

Null Hypothesis 3. There are no gain score differences in perceptions of the efficacy of institutional patterns of communicating information about student services among the three groups after treatment.

Null Hypothesis 4. There are no gain score differences in plans to use student services among the three groups after treatment.

Null Hypothesis 5. There are no gain score differences in perceptions of the educational relevance of student services among the three groups after treatment.

Null Hypothesis 6. There are no gain score differences in perceptions of the readiness of student services to serve students of all ages among the three groups after treatment.

Null Hypothesis 7. There are no differences among the three groups in their levels of awareness, use, and satisfaction with student services eight weeks after treatment.

Level of significance/probability was set at $p = .05$.

Population

Life cycle researchers such as Gould (1972) and Kasworm (1982) suggested that traditional age students age 18 through 22 and late completers age 23 through 29, as a group, were significantly different from students 30 years of age and older in their psychological, socio-emotional, and behavioral characteristics. For this reason, the age of the student population targeted for participation in this study was limited to 30 years of age and older. The population was further limited to undergraduate students attending the University of Central Florida for the first time during the spring term of 1986. The University of Central Florida, like its counterparts, the University of South Florida in Tampa, Florida Atlantic University in Boca Raton, Florida International University in Miami, and the University of North Florida in Jacksonville, was primarily a commuter urban institution. It is located in suburban Orlando within commuting distance to the east coastal cities of Daytona Beach, Titusville, Cocoa, Melbourne, and 13 miles from downtown Orlando. Baccalaureate degree programs were offered in business administration, education, engineering, general studies, health related professions, social sciences, humanities and fine arts, and natural sciences (University of Central Florida, 1985).

The total baccalaureate degree seeking student population for the spring term of 1986 was 11,989 students. Of these, 800 were on-campus residents. Age ranged from 15 to 73. There were 1,886 students age 30 years or older. The median age for the total university was 26 years. The median age for the undergraduate population was slightly younger (see Table 3-1) (University of Central Florida, 1986). No gender by age statistics were available.

Sampling Procedure

As a result of a computer service request made to the University of Central Florida, a randomly selected list of 220 students was generated. This list included the names, addresses, and phone numbers of students who met the criteria, age and length of attendance, for inclusion in this study. The list also included the students' gender, race, and class level. From their addresses, on/off campus and local/commuter status were determined.

Telephone calls were made to every student on the list living within the "local call" area of Orlando. During the telephone contact, the students were invited to participate in this study and inquiry was made as to the most convenient days and times to schedule the informational sessions. Taking into consideration the time preferences expressed by these students, two weekday evening meeting dates were scheduled.

As a result of this telephone contact, three students had to be dropped from the study because they reported that they had dropped out. A letter (see Appendix A), co-signed by the vice president for

Table 3-1

University of Central Florida Students: Age Distribution Spring 1986

Age	Freshmen	Sophomore	Junior	Senior	Total
<18	32	4	1	0	37
18	758	68	14	1	841
19	347	582	108	13	1,050
20	69	325	811	150	1,355
21	22	106	766	807	1,701
22	26	44	445	1,011	1,526
23	13	29	238	704	984
24	17	16	171	485	589
25	12	16	148	383	559
26	7	14	111	339	471
27	9	11	82	255	357
28	5	6	85	214	310
29	5	4	57	207	273
30	4	11	51	173	235
31	3	4	46	139	194
32	2	1	44	134	184
33	4	6	32	130	177
34	3	4	27	102	136
35	1	2	26	74	102
36	1	2	20	81	108
37	1	4	22	62	89
38	2	2	16	55	75
39	3	2	21	54	80
40-49	7	4	90	252	353
50-59	2	0	21	65	88
60-64	0	1	3	6	10
>64	<u>0</u>	<u>0</u>	<u>1</u>	<u>4</u>	<u>5</u>
Total	1,355	1,292	3,457	5,900	11,989
Percent	11.3	10.7	28.8	49.2	100

Note. From University Report: Age Distribution. University of Central Florida, Spring 1986.

student affairs, was mailed to the remaining 217 students on the sample list. This letter restated the purpose and goals of the study and encouraged the students to participate.

As a result of this letter, numerous phone calls were received by the office for student affairs from students interested in participating in the informational groups. However, many of these students could not participate due to conflicts in class or work schedules. Also as a result of this mail-out, six students were dropped when their letters were returned as undeliverable.

A third meeting date was set for a Saturday morning and another letter (Appendix B) co-signed by the vice-president for student affairs was sent to all students who had not participated in the weekday evening groups.

Participants

The original computer generated list of 220 prospective participants was reduced to 211 as a result of incomplete or erroneous addresses and mortality due to incidences of student drop-out (see Table 3-2). Of the 211, 48 (23%) chose to participate in an informational group and completed the pretest questionnaire (see Table 3-3).

As one group, the 48 participants' ages ranged from 30 through 62, 29 (60%) of them were under 40, 14 (29%) were 40 through 49, and 5 (10%) were over 50 years of age. The mean age of the participants was 38.8 years. By gender they were divided between 30 (62%) women and 18 (38%) men. Their race/ethnicity included 45 whites, 1 black, 1 Asian (Vietnam), and 1 other (Israeli). Their residence status indicated that 31 (65%) lived within 30 miles from the main

Table 3-2

Demographic Descriptors of Population (N = 211)

	Freshmen	Sophomores	Juniors	Seniors
Number	17	13	99	82
Age Range	31-48	30-44	30-63	30-62
Gender:				
Male	5	4	34	36
Female	12	9	65	46
Race:				
White	13	13	91	76
Black	2	0	4	3
Hispanic	1	0	3	0
Asian	0	0	1	1
Other	1	0	0	2
Residence:				
Within 30 mi.	16	11	49	37
Beyond 30 mi.	1	2	50	45

Table 3-3

Demographic Descriptors of Participants (N = 48)

	Freshmen	Sophomores	Juniors	Seniors
Number	7	4	21	16
Age Range	31-48	31-41	30-56	30-62
Gender:				
Male	2	1	5	10
Female	5	3	16	6
Race:				
White	6	4	20	15
Black	0	0	0	1
Hispanic	0	0	0	0
Asian	0	0	1	0
Other	1	0	0	0
Residence:				
Within 30 mi.	7	4	14	8
Beyond 30 mi.	0	0	7	8

campus while 17 (35%) lived more than 30 miles from campus. Of the 17 out-of-town residents, 8 (47%) were from Brevard County, located more than 60 miles away from the main campus.

The strong representation by out-of-town students was viewed as remarkable for several reasons:

1. The out-of-town students were not personally contacted on the telephone.
2. Attending the weekday evening groups necessitated that the participants drive long distances at night.
3. Participating in the Saturday morning group meant the loss of half a day of their weekend.
4. The students in this study did not receive any financial payment for participating.

That so many students, in-town and out-of-town residents, chose to participate was unexpected in itself because older students in general had been reported to be reluctant to participate in campus activities due to their time constraints, family/work/study commitments, and their off-campus orientation. At UCF recent attempts to involve the older students in support groups and/or social events had failed. In the study reported by Davila (1985), the older students had been paid for their time in order to ensure their participation.

Recruitment and Training of Facilitators

The groups were facilitated by volunteer student members of the "Student Center Orientation Team" (O.T.). Orientation Team members are traditional age undergraduates who have been trained in leadership

skills and in group facilitation. This training enables them to orient new students to campus activities and student services.

Six O.T. members and two student center graduate assistants were recruited. These prospective volunteer facilitators were given additional training to facilitate the experimental groups. The goal of the training sessions was to ensure that the facilitators for the groups were knowledgeable about the selected student services and sensitive to the issues that affect older students' perceptions of the relevance of student services in their educational experiences. The information contained in chapters I and II of this manuscript was used to engage the volunteer facilitators in an interactive group discussion of their perceptions and feeling about older undergraduate students' needs. They were asked to consider what would constitute appropriate student services for that population. Finally, they were asked to role-play older students' expressions of concerns and feelings regarding the existing student services. In addition to this 90-minute training session, a 30-minute session was scheduled before each of the informational groups to review the purpose and goals of each session, the levels of personal interaction required of the facilitators, and to review the pertinent information about the selected student services to be communicated to each group. Ultimately, three of the six O.T. members and the same two graduate assistants who received this training served as facilitators for the three information groups (see Table 3-4).

Table 3-4

Demographic Description of Facilitators

	Graduate Assistants		O.T. Members	
Number	2		3	
Gender	Female = 1	Male = 1	Female = 2	Male = 1
Age	27	28	21	22
Race	White	Black	White	Black

Selection of Student Services Providers

The following four major providers of student services were selected for this study:

1. counseling and testing center,
2. student placement center,
3. financial aid, and
4. recreational services.

These service providers were selected because of their traditional saliency in student life. According to the literature reviewed, however, older undergraduates have repeatedly been found to be interested in but unaware or poorly informed about these services (Davila, 1985; Heinlein & Byers, 1981; Kasworm, 1977/1978). Similar to black students in primarily white student universities (Benedict et al., 1977; Miles, 1980/1981), older students have perceived student services to be available primarily for the benefit of the majority, i.e., the younger student population (Geisler & Thrush, 1975; Kasworm, 1977/1978).

Treatments

Two methods of communicating information about the selected student services were tested for their effectiveness relative to changes in the older students' levels of knowledge about student services; levels of expressed academic, career/occupational, and personal needs; and their perceptions of issues concerning student services.

The two experimental groups received the treatment information, i.e., identical factual information about each of the four selected student services. This information responded to the following concerns:

1. What specific services were offered by each of the selected services?
2. Who was eligible to receive the services?
3. Where were the services located?
4. What were the hours of operation of each service?
5. What were the fees for the services, if any?

The third group in the experiment was designated as the control group. In experimental designs, control groups, that is, groups that are not exposed to the treatment interventions, provide the opportunity to compare changes reported by treatment group subjects with changes or lack of changes reported by subjects not exposed to the treatment interventions. In this study, the control group received information about the student organizations and activities sponsored by student government and by the programs and activities council.

At the time that the students were invited to participate they were not informed of the different formats planned for each of the

three groups. Therefore, the students' attendance at any of the groups was determined by their day-of-the-week/time-of-day availability or preference. One of the evenings groups met on a Tuesday and the other on a Wednesday from 6 to 9 p.m. The Saturday morning group met from 9:30 a.m. to 12:30 p.m. The demographic distribution of the participants is presented by groups in Table 3-5.

Table 3-5

Demographic Descriptors of Participants by Group Attended

	Experimental Group 1	Experimental Group 2	Control Group
Number	12	21	15
Class			
Freshman	2	3	2
Sophomore	1	2	1
Junior	5	8	8
Senior	4	8	4
Age Range	31-52	30-47	30-62
Gender			
Male	5	8	5
Female	7	13	10
Race			
White	11	21	13
Black	1	0	0
Hispanic	0	0	0
Asian	0	0	1
Other	0	0	1
Residence			
Within 30 miles	9	15	8
Beyond 30 miles	3	6	7

Experimental Group 1 (N = 12)

Format. This group's format integrated a lecture, a tour of student services, and question and answer periods with structured interactive activities and unstructured opportunities for interaction between students and facilitators.

1. Initially, structured interactive group activities allowed the students to get acquainted with the facilitators and with each other.

2. The facilitators presented the treatment information about the selected student services using a lecture format and allowing for questions from the students. The "lecture" consisted of the oral presentation of the treatment information about each of the selected student services, i.e., (a) the specific services offered by each of the selected services, (b) who was eligible to access the services, (c) location of the services, (d) hours of operation of each service, and (e) fees for services, if any.

3. The facilitators repeated the treatment information while visiting each of the selected student services and responded to questions about each service toured.

Protocol. The meeting for group 1 was held in a large classroom. The seats were arranged in rows facing in one direction. Name tags and two copies of the questionnaire (see Appendix C), labeled "A" and "B" for the pre- and posttest respectively and coded to facilitate the analyses, were given to each student. When 12 students had arrived, the facilitators went in front of the group and asked for the students' attention. One of them read the introductory briefing (see Appendix D) and asked that the students complete the pretest

questionnaire. Then the facilitators collected the completed questionnaires and proceeded to introduce themselves giving their names, majors, home town, and the general area of their current residence. The facilitators asked that the students identify themselves in the same manner. The students complied with this request. The facilitators then explained the activities and tour of services that had been planned for this evening and began the lecture portion by discussing common student needs such as financial aid and academic advising and the role of student services on campus. After this discussion the facilitators presented the treatment information about the selected student services. They began with the facts about financial aid and ended with a discussion about recreational services. A question and answer period followed the presentation of the treatment information about each service. After a short refreshment break the facilitators led the students across campus to visit the four targeted student services. On the way students were free to socialize, or not, among themselves and with the facilitators.

When they arrived at each of the services the facilitators repeated the treatment information pertinent to that particular student service and answered questions raised by the students. After completing the tour of the last service and having responded to all the questions, the facilitators gathered the students around and asked that the students complete the posttest questionnaire. When these were collected the students were free to leave. After the students left, the facilitators met with the researcher to process their experiences.

Experimental Group 2 (N = 21)

Format. This group incorporated the small or "buzz" group as its primary interactive mode and medium for the dissemination of the treatment information. There were three distinct stages of student-student, student-facilitator interaction.

1. Initially, structured interactive group activities allowed students to get acquainted with the facilitators and with each other.

2. Subsequently, the group was broken into four small groups and the treatment information was presented and discussed within each small group.

3. Finally, reassembled in one group, issues discussed in the small groups were raised again and intergroup interaction provided opportunities for reinforcing the treatment information.

Protocol. The meeting for group 2 was held in a large classroom. The seats were arranged in a large circle where all participants could see each other's faces. Name tags and two copies of the questionnaire (see Appendix C), labeled "A" and "B" for the pre- and posttests respectively and coded to facilitate the analyses, were given to each student. While they waited for other students to arrive, those present were free to socialize with each other, or not, at their discretion.

Twenty-one students had arrived when the facilitators began the evening's program. One of the facilitators read the introductory briefing (see Appendix D) and asked that the students complete the pretest questionnaire. The facilitators collected the completed questionnaires and proceeded to introduce themselves by giving their names, majors, home town, and the general area of their current

residence. The facilitators asked the students to state (a) the reasons why they had chosen to attend UCF versus any of the other 4-year colleges in the same catchment areas and (b) their expectations with reference to their participation in academic, social, cultural, and recreational opportunities available at UCF.

The facilitators then introduced the students to the role of student services on campus. Following this discussion, the group was divided into four smaller groups. At least one facilitator sat with each group, presented the treatment information about the selected student services, and answered questions about the services as they were discussed.

After a short refreshment break, the students were regrouped into one large circle and the concerns that had been voiced in the small groups were shared with all the students. The treatment information was presented again and questions about the services were answered. The students were asked to complete the posttest questionnaires. When these were collected the students were free to leave. After the students left the facilitators met with the researcher to process the evening's experiences.

Group 3 Control Group (N = 15)

Format. This group integrated a lecture mode with structured interactive activities to deliver the control information. Opportunities for unstructured student to student, student to facilitator interactions were provided.

1. Initially, structured interactive group activities allowed the students to get acquainted with the facilitators and with each other.

2. Using a lecture format the facilitators presented information about services and programs sponsored by student government and the programs and activities council. A question and answer period followed the oral presentation.

3. Students were free to socialize, or not, with the facilitators and other students before and after the structured group process and during one planned recess held at the midpoint of the structured group process.

Protocol. Group 3 met on a Saturday morning at UCF's cafeteria before it opened to the regular student clientele. As the participants arrived, they were individually greeted and given name tags and two copies of the questionnaire (see Appendix C), labeled "A" and "B" for the pre- and posttests respectively and coded to facilitate the analyses.

When 15 students had arrived, the tables and chairs were arranged where all could see each other's faces. Once seated, one of the facilitators read the introductory briefing (see Appendix D) and asked that the students complete the pretest questionnaire. The facilitators collected the completed questionnaires and proceeded to introduce themselves giving their names, majors, home town, and the general area of their current residence. The facilitators asked that the students identify themselves in the same manner. The students complied with this request. Then the facilitators asked the students to state (a) the reasons why they had chosen to attend UCF versus any of

the other four year colleges in the same catchment areas, and
(b) their expectations with reference to their participation in academic, social, and cultural opportunities available at UCF.

After a short recess the facilitators presented the control information. The "Programs and Activities Council" (PAC) was presented as a student-run organization that provided educational, cultural, and social programs for students. Membership was free and all students were eligible to participate. Several of the programs and service committees sponsored by PAC were identified and described such as the orientation team; the leadership, education, and development programs; and the cinema, cultural, homecoming, popular entertainment, speakers, and UCF pageant scholarships committees. The source of funding for PAC was also identified. After a short question and answer period the facilitators continued the lecture portion of this group's format by presenting the control information about student government. Several of the services sponsored by student government were described. Membership and levels of participation were explained and source of funding for student government was identified.

After this presentation the facilitators responded to the older students' questions. When the questions were answered the posttest questionnaires were completed and collected. After the older students left the facilitators met with the researcher to process the morning experiences.

Development of the Instruments

The data were collected by using two instruments developed for this study by adapting items from existing surveys (Lehman, 1981).

The 3-part Student Services and Undergraduate Needs Survey (see Appendix C) consisted of 43 items; 5 of these were open-ended questions. In field trials this instrument was completed in less than 10 minutes. The follow-up instrument, the Use and Satisfaction with Selected Student Services (see Appendix E) consisted of 11 items, 1 of these was an open-ended question.

Student Services and Undergraduate Needs Survey: Part I. Knowledge of Student Services

This section was developed by the researcher to determine the students' levels of knowledge about the selected student services. The questions were directly related to the information intended to be communicated in the treatment groups, i.e., the what, where, when, how much, and who was eligible to receive each service. The response options were "I know," "Unsure," and "I don't know."

Part II. Undergraduate Needs

This section focused on the academic, career/occupational, and personal needs of undergraduates. Academic needs were assessed by 9 items, career/occupational needs were assessed by 8 items, and personal needs were assessed by 12 items. The response options were "No need at all," "Some need," "Moderate need," "Strong need," and "Indispensable." The items chosen were part of two existing surveys, a 40-item needs assessment developed and used by the counseling center at the University of Georgia (Weissberg, 1980; Weissberg et al., 1982), and the 66-item Adult Learner Needs Assessment Survey developed and published by the American College Testing Program (1981). Other needs assessment forms were reviewed and rejected because, while

addressing the same areas of student concerns, the items seemed to be applicable to narrowly defined student groups such as reentering students (Lourie, 1977), older community college students (Ganikos, 1977/1978), and black older community college students (Rollins, 1982/1983).

To select the items chosen for Part II, the undergraduate needs section of the survey form used in this study, the University of Georgia's needs assessment was subjected to expert and student opinion validity tests of the appropriateness of content and clarity of the form of the items. In addition, a pilot study was conducted and coefficient Alpha (Cronbach, 1951), a statistic indicating the reliability among a set of items, was calculated (descriptions of these procedures follow). When the results of these procedures indicated a need to include items specific to the needs of older students, the Adult Learners Needs Assessment Survey provided a pool of possible item choices. The unpublished results of an older student survey using the Adult Learners Needs Assessment Survey conducted at the University of Florida in 1984, provided a 25-item pool of the items ranked highest in level of need by those respondents.

Ultimately, 18 items were chosen from the University of Georgia's needs assessment and 11 items were chosen from the Adult Learners Needs Assessment Survey. To arrive at the final form of the Undergraduate Needs section, the chosen items were reviewed. Many items were shortened to improve their clarity. Finally, all items were ordered; those requiring less personal disclosure were presented first to gradually introduce the respondents to the more intrusive, more

personal questions. In addition, three open-ended response opportunities were provided.

Part III. Student-consumer Perceptions of Student Services

This section was developed by the researcher to determine the students' levels of agreement with statements that were designed to reflect various perceptions of student services. The response options were "Agree," "Unsure," and "Disagree." Two open-ended questions provided up to eight additional opportunities for the students to express their perceptions of student services.

Use and Satisfaction with Selected Student Services Survey

This 11-item survey (see Appendix E) was an adaptation of one question used in a survey developed by the College Board and used in their Urban University Study (Davila, 1985). Similar surveys were also used by Kasworm (1977/1978) and by Lewicki and Thompson (1982) in their studies of diverse student populations. For each of the selected services, respondents were asked to state whether they were aware of the service, had not used the service, had used the service and had been satisfied with it, or whether they had used the service and had been dissatisfied with it. One open-ended question was provided for additional comments.

Validity

Survey instruments, though not normed, can be assessed for content validity. Parts I and III of the Student Services and Undergraduate Needs Survey (see Appendix C) and the follow-up survey, the Use and Satisfaction with Selected Student Services Survey (see

Appendix E) were scrutinized for appropriateness of content and clarity of form by 23 graduate level educational research students. Using Supplementary Questionnaire I (see Appendix F), developed by this researcher, the students reported that they found the items to be appropriate to the purposes of the surveys, the instructions and the language of the items to be easily understood, and the answer spaces to be easily located.

In the development of part II, the undergraduate needs section of the Student Services and Undergraduate Needs Survey, the original instrument, 40-item University of Georgia needs assessment, was subjected to expert and undergraduate students' validation of the appropriateness of the items and the clarity of form. Copies of the instrument were mailed to 14 higher education student personnel service experts throughout the United States. The participants were distinguished professors and nationally well known authors or served on editorial boards of higher education and student personnel journals. Three of the nine responses received were unequivocally validating. Three others raised questions relative to the applicability of some items to the older student population and/or the lack of specificity of some items which could lead to equivocal responses. The other three responses confused the request for validation of the appropriateness of the items and the clarity of form for a request for construct validity.

As a result of the expert opinion content validation effort some of the original survey items were altered. The item dealing with homesickness was deleted. Two other items dealing with parental relationships/divorce were changed to read "relationship with my

family" and "divorce in my family." When the survey was administered at the University of Georgia, the results indicated that the three items in question were among the lowest ranked of the personal needs items, regardless of the age of the respondents (Weissberg, 1980). Homesickness was ranked 37 (out of 40), relationship with parents was ranked 35, and parent's divorce was ranked 40.

Thus amended, the needs assessment was tested for content and form validity through a pilot study.

Pilot Study

Forty-eight upper division undergraduates were asked to respond to the first draft, 100-item, Undergraduate Needs and Student Services Survey which included the amended needs assessment. In addition, they were asked to respond to the Supplementary Questionnaire II (see Appendix G) developed by the researcher to assess the students' reactions to the content, form, length, and attention-holding capability of the survey.

Fifteen younger University of Central Florida students were personally recruited by members of the UCF Orientation Team. The forms were handed to them with verbal instructions to complete and return them to the counseling center. Fifteen forms were returned though one respondent did not complete most of the items (96% return).

Twenty-one older students' names were selected from a list provided by the University of Florida Student Services office. The forms were mailed to them with an explanatory cover letter and a self-addressed stamped envelope to facilitate their return. Twelve forms were returned (71% return). In addition, 12 forms were distributed to

older students by members of the Students Over Traditional Age (SOTA) organization at the University of Florida with instructions to complete and return the forms to the student services office. Eight forms were returned (66% return).

The results indicated that, though students found the items easy to read and the instructions easy to follow, some older students objected to items that seemed incongruous to their time of life and personal situations such as "learning more about birth control" or "getting along with your marriage/dating partner." In addition, younger and older students expressed mixed reactions to the length and attention-holding capabilities of the survey (see Table 3-6).

Table 3-6

Students' Responses to the Length and Attention-holding Capabilities of the Survey

Responses	Younger	(%)	Older	(%)
Did not complete questionnaire	0	0	1	4
Interesting and OK in length	5	36	2	9
Boring and too long	1	7	1	4
Boring, not too long	0	0	4	17
Interesting, too long	1	7	1	4
OK in interest level, too long	3	23	2	9
Not interesting, OK in length	0	0	1	4
OK in interest level, OK in length	<u>4</u>	<u>29</u>	<u>11</u>	<u>48</u>
Totals	14	100	23	99

As a result of this validation effort, it became apparent that the number of survey items needed to be reduced as well as better fitted to the interests and needs of the older student group. To assist in determining which items to keep or delete, coefficient Alpha

and frequency distributions were calculated on the responses to the pilot study. The Statistical Package for the Social Sciences (SPSSX) computer package was used to assist with the calculations.

Reliability

Coefficient Alpha (Cronbach, 1951), a statistic indicating the reliability among a set of items, was calculated for the aggregate scores of the 37 pilot study participants (23 older, 14 younger) as a group and separately as two age groups on the three scales (academic, personal, and career/ occupational) embedded in the needs assessment section of the survey used in the pilot study (see Table 3-7).

Table 3-7

Internal Consistency of Academic, Career/Occupational and Personal Needs Scales

Subjects	Scale	# of Items	Alpha
37 (all)	Academic Needs	16	.83
37 (all)	Career/occupational Needs	9	.88
37 (all)	Personal Needs	39	.93
23 (older)	Academic Needs	16	.81
23 (older)	Career/occupational Needs	9	.86
23 (older)	Personal Needs	39	.93
14 (younger)	Academic Needs	16	.82
14 (younger)	Career/occupational Needs	9	.89
14 (younger)	Personal Needs	39	.87

High levels of internal consistency were found in the three scales. In order to fit the items to the interests and needs of older

students, the frequency distributions calculated on their responses were used to assist in the decisions that were made to keep or delete items from the original needs assessment instrument. Coefficient Alpha was calculated on the 18 items (see Table 3-8). Moderately high levels of internal consistency were found in the academic, career/occupational, and personal needs scales for the older students.

Table 3-8

Internal Consistency of Items Chosen to Be Included in the Undergraduate Needs Section

Subjects	Scale	# of Items	Alpha
37 (all)	Academic Needs	7	.76
37 (all)	Career/occupational Needs	5	.81
37 (all)	Personal Needs	6	.82
23 (older)	Academic Needs	7	.75
23 (older)	Career/occupational Needs	5	.81
23 (older)	Personal Needs	6	.82

The final form of the needs assessment part of the survey instrument included the 18 items tested for internal consistency and also 11 items adapted from the American College Testing Program's Adult Learners Needs Assessment Survey (1981). The responses to the 29-item instrument thus developed were collected during this study. Coefficient Alpha was calculated on these items. The reliability of the instrument was confirmed (see Table 3-9).

Table 3-9

Alpha Coefficients of Pre- and Posttest Responses by Scale

Scale	Pretest	Posttest
Academic	.77	.83
Career/occupational	.83	.85
Personal	.79	.82

Data Analyses

Raw scores (check marks) were assigned numerical values in ascending or descending order according to the ascending or descending order of the levels of knowledge, needs, or agreement presented by the three questionnaires contained in the survey (see Appendix C). The sums of the assigned values constituted the numerical data base used to test Null Hypotheses 1 through 6.

The three levels of information, i.e., (a) I know, (b) unsure, and (c) I don't know, presented in part I of the survey, were scored in descending order as 3, 2, and 1 respectively. The five levels of expressed need, i.e., (a) No need, (b) Some need, (c) Moderate need, (d) Strong need, (e) Indispensable, presented in part II of the Survey were scored in ascending order as 1, 2, 3, 4 and 5 respectively. The three levels of agreement, i.e. (a) Agree, (b) Unsure, and (c) Disagree, presented in part III of the Survey were scored in descending order as 3, 2, and 1 respectively.

The responses to the follow-up questionnaire (see Appendix E), were assigned values as follows: 1 for check marks, "no" responses were coded as 0. The values were summed by level of awareness, use,

and satisfaction or dissatisfaction with student services. Ten student services were presented for use/satisfaction assessment. The sum of the assigned values constituted the numerical data base used to test Null Hypothesis 7.

Analysis of differences (Isaac & Michael, 1979; Kerlinger, 1973) procedures were used to test Null Hypotheses 1 through 6. Of interest was the magnitude of the gain score differences recorded between the pre- and posttest scores for each group (T_1-T_2 or T_2-T_1) and the possibility that significant differences might be related to the treatment interventions used. To explore this possibility, the data collected through the pre- and posttest administration of the Survey (see Appendix C) were subjected to the following three statistical analysis procedures: (a) The mean pretest score and the mean posttest score for each group were computed. Then the differences between the mean pretest scores and the mean posttest scores (T_1-T_2 or T_2-T_1) were computed for each group separately. (b) Analysis of variance statistical procedures were used to determine if there were significant differences in the resultant (T_1-T_2 or T_2-T_1) gain scores among the groups, and (c) when significant differences were found the Duncan Multiple Range Test (Edwards, 1972) was applied to identify which specific group gain score differed from the others. The Duncan test was chosen because of its ability to identify differences where other, more conservative, post hoc measures such as Scheffé might not identify any (Ferguson, 1976).

Null Hypothesis 7 was tested through chi-square analysis procedures. Level of significance/probability was set at $p = .05$. The

Statistical Package for the Social Sciences (SPSSX) computer program was used to assist with the statistical computations.

Specifically, for Null Hypothesis 1, one-way analysis of variance procedures were applied to

1. the differences (T_2-T_1) among the means of the three groups on knowledge about the counseling and testing center services (see Appendix C, part I, question 1),
2. the differences (T_2-T_1) among the means of the three groups on knowledge about the placement center services (see Appendix C, part I, question 2),
3. the differences (T_2-T_1) among the means of the three groups on knowledge about the financial aid services (see Appendix C, part I, question 3), and
4. the differences (T_2-T_1) among the means of the three groups on knowledge about recreational services (see Appendix C, part I, question 4).

For Null Hypothesis 2, one-way analysis of variance procedures were applied to

1. the differences (T_1-T_2) among the means of the three groups on academic needs (see Appendix C, part II, questions 1, 4, 9, 13, 15, 17, 26, 27, and 28),
2. the differences (T_1-T_2) among the means of the three groups on career/occupational needs (see Appendix C, part II, questions 2, 7, 8, 12, 16, 19, 22, and 23), and
3. the differences (T_1-T_2) among the means of the three groups on personal needs (see Appendix C, part II, questions 3, 5, 6, 10, 11, 14, 18, 20, 21, 24, 25, and 29).

For Null Hypothesis 3, one-way analysis of variance procedures were applied to the differences (T_2-T_1) among the means of the three groups on perceptions of the efficacy of existing institutional patterns of communicating information about student services (see Appendix C, part III, question 1).

For Null Hypothesis 4, one-way analysis of variance procedures were applied to the differences (T_2-T_1) among the means of the three groups on plans to use student services (see Appendix C, part III, question 2).

For Null Hypothesis 5, one-way analysis of variance procedures were applied to the differences (T_2-T_1) among the means of the three groups on perceptions of the educational relevance of student services (see Appendix C, part III, question 3).

For Null Hypothesis 6, one-way analysis of variance procedures were applied to the differences (T_2-T_1) among the means of the three groups on perceptions of the readiness of student services to serve students of all ages (see Appendix C, part III, question 4).

To test Null Hypothesis 7, the categorical data collected through the follow-up questionnaire (see Appendix E) eight weeks after the treatment interventions, were analyzed through chi-square procedures. The chi-square analysis for statistical significance tests the probability that an observed distribution of cases would have occurred by chance when no association exists among the variables in the population (Klecka, Nie, & Hull, 1975).

Specifically, the responses to four categories of awareness, use, and satisfaction with student services were crosstabulated by the three groups and analyzed for significance through chi-square

procedures. The four categories of awareness, use, and satisfaction were (a) I was not aware of this service, (b) I was aware of this service but have not used it, (c) I used this service and was satisfied with it, and (d) I used this service and was dissatisfied with it.

Limitations

The 48 participants in this study were part of a randomly selected computer-drawn list of 220 older undergraduates in attendance at the University of Central Florida at the time of this study. However, they volunteered to participate. They were neither randomly selected nor randomly assigned to the informational groups. Their attendance at any of the groups was determined by their day-of-the-week/time-of-day availability or preference.

Lacking random assignment, analyses of covariance with the pre-test scores as the covariate would have been meaningless. Instead, the less robust analyses of gain score differences were performed.

There are inherent limitations in the relatively small number of subjects, and in the one-time, 2½ hour duration of the informational interventions tested. Nevertheless, the outcomes of this study can be generalized to similar populations attending similar colleges or universities, i.e., older undergraduates attending institutions located in urban areas and where the majority of all students are off-campus residents.

The self-report method of data collection, i.e., the use of survey instruments and needs assessments to collect the study's data, introduced other forms of limitations. The self-report method of data

collection assumes that the subjects queried will answer candidly. It also assumes that the subject areas can be adequately assayed by a limited number of questions. The language of the questions may pose somewhat of a dilemma--where language specificity has the advantage of being easily understood, defined, and measured, it may also limit true comprehensiveness. Conversely, very generally stated questions may lead to equivocal interpretations among subjects (Klein et al., 1971). Griffin (1973) described needs assessment as a concealing technology that tended to measure needs for services that were already well known to the service delivery systems conducting the assessments. To compensate for the possibility of overlooking unidentified student needs, open-ended questions were included in the needs assessment and survey forms used in this study.

CHAPTER IV RESULTS

In this chapter, the results of the data analyses are presented and discussed as these are related to the null hypotheses.

Null Hypothesis 1

There are no gain score differences in the levels of knowledge about specific services (counseling and testing, financial aid, placement, recreational) among the three groups after treatment.

Analysis of variance procedures were applied to the gain score differences (mean posttest score minus mean pretest score for each group) among the three groups on

1. knowledge about the counseling and testing center services,
2. knowledge about the placement center services,
3. knowledge about financial aid services, and
4. knowledge about recreational services.

Knowledge about the Counseling and Testing Center Services

A significant difference was found among the scores of the three groups ($F = 28.38$, $df = 2/45$, $p = <.05$) in the levels of knowledge about the counseling and testing center services. The analysis of variance and cell means are summarized in Table 4-1 and Table 4-2.

To identify the location of the significant difference found among the scores of the three groups, a Duncan Multiple Range Test was applied. The control group, i.e., group 3, means was significantly

Table 4-1

One-way Analysis of Variance for Knowledge of the Counseling and
Testing Center Services

Source of Variation	Sum of Squares	df	Mean Squares	F Ratio	F Prob.
Between groups	384.87	2	192.43	28.38	.0000
Within groups	305.12	45	6.78		
Total	690.0	47			

Table 4-2

Cell Means and Standard Deviations

Group	Count	Means	SD
1	12	5.92	3.23
2	21	5.90	2.90
3	15	- .20	1.90

different from the means of group 1 and group 2, the two groups that received the treatment intervention/information. There was no significant difference found between the means of group 1 and group 2. The results of the Duncan Multiple Range Test are presented in Table 4-3.

Table 4-3

Duncan's Multiple Range Test for $k = 3$ Means*

Group	1 N = 12	2 N = 21	3 N = 15
Means	5.92	5.90	-.20

*Any two means not underscored by the same line differ significantly.

The two information dissemination formats used to communicate the treatment information effected similar gains in the older students' levels of knowledge of the counseling and testing center services. By contrast, the control group participants scored slightly lower in their posttest than on their pretest levels of knowledge about the counseling and testing center services. The gains in the levels of information were expected, after all, the treatment information contained specific data about the counseling and testing center services. The drop in the posttest levels of information of the control group was unexpected. However, this drop was small and may have occurred by chance.

Knowledge About the Placement Center

There was a significant difference found among the scores of the three groups ($F = 26.09$, $df = 2/45$, $p = <.05$) in the levels of knowledge about the placement center services. The analysis of variance and cell means are summarized in Table 4-4 and Table 4-5.

Table 4-4

One-way Analysis of Variance for Knowledge About the Placement Center Services

Source of Variation	Sum of Squares	df	Mean Squares	F Ratio	F Prob.
Between groups	345.79	2	172.90	26.09	.0000
Within groups	298.21	45	6.63		
Total	644.00	47			

Table 4-5

Cell Means and Standard Deviations

Group	Count	Means	SD
1	12	6.66	3.23
2	21	6.09	2.84
3	15	.53	2.03

To identify the location of the significant difference found among the scores of the three groups, a Duncan Multiple Range Test was applied. The control group, i.e., group 3, means was significantly different from the means of group 1 and group 2, the two groups that

received the treatment intervention/information. There was no significant difference found between the means of group 1 and group 2. The results of the Duncan Multiple Range Test are presented in Table 4-6.

Table 4-6

Duncan's Multiple Range Test for $k = 3$ Means*

Group	1 N = 12	2 N = 21	3 N = 15
Means	6.66	6.09	.53

*Any two means not underscored by the same line differ significantly.

Knowledge About Financial Aid Services

There was a significant difference found among the scores of the three groups ($F = 11.56$, $df = 2/45$, $p = <.05$) in the levels of knowledge about financial aid services. The analysis of variance and cell means are summarized in Table 4-7 and Table 4-8.

To identify the location of the significant difference found among the scores of the three groups a Duncan Multiple Range Test was applied. The control group, i.e., group 3, mean was significantly different from the means of group 1 and group 2, the two groups that received the treatment intervention/information. There was no significant difference found between the means of group 1 and group 2. The results of the Duncan Multiple Range Test are presented in Table 4-9.

Table 4-7

One-way Analysis of Variance for Knowledge About Financial Aid Services

Source of Variation	Sum of Squares	df	Mean Squares	F Ratio	F Prob.
Between groups	207.99	2	103.99	11.56	.0000
Within groups	404.82	45	8.99		
Total	612.81	47			

Table 4-8

Cell Means and Standard Deviations

Group	Count	Means	SD
1	12	3.25	2.96
2	21	4.86	3.14
3	15	.00	2.83

Table 4-9

Duncan's Multiple Range Test for $k = 3$ Means*

Group	1 N = 12	2 N = 21	3 N = 15
Means	3.25	4.86	.00

*Any two means not underscored by the same line differ significantly.

Knowledge About Recreational Services

A significant difference was found among the scores of the three groups ($F = 34.12$, $df = 2/45$, $p = <.05$) in the levels of knowledge about recreational services. The analysis of variance and cell means are summarized in Table 4-10 and Table 4-11.

Table 4-10

One-way Analysis of Variance for Knowledge of Recreational Services

Source of Variation	Sum of Squares	df	Mean Squares	F Ratio	F Prob.
Between groups	384.87	2	192.44	34.12	.0000
Within groups	253.79	45	5.64		
Total	638.67	47			

Table 4-11

Cell Means and Standard Deviations

Group	Count	Means	SD
1	12	6.58	2.23
2	21	6.57	2.68
3	15	.47	1.99

To identify the location of the significant difference found among the scores of the three groups, a Duncan Multiple Range Test was applied. The control group, i.e., group 3, means was significantly different from the means of group 1 and group 2, the two groups that received the treatment intervention/information. There was no

significant difference found between the means of group 1 and group 2. The results of the Duncan Multiple Range Test are presented in Table 4-12.

Table 4-12

Duncan's Multiple Range Test for $k = 3$ Means*

Group	1 N = 12	2 N = 21	3 N = 15
Means	6.58	6.57	.47

*Any two means not underscored by the same line differ significantly.

Findings

In the areas of information about the counseling center services, placement center services, financial aid services, and recreational services, comparable gains were effected by the two information dissemination formats used to communicate the treatment information, i.e., group 1 and group 2. These results were significantly different from those of the control group, i.e., group 3, format. It is not clear, however, if information alone effected the reported gains. What is clear is that specific information about selected student services, communicated either by a lecture and tour of services format or through interactive, small group activities, effected a significant gain in the levels of knowledge about those services in the participants compared to the effects of a lecture and large interactive group format where information not relevant to the specific student services under study was presented. Based on these results, Null Hypothesis 1 was rejected.

Null Hypothesis 2

There are no gain score differences in the levels of expressed needs (academic, career/occupational, and personal) among the three groups after treatment.

Analysis of variance procedures were applied to the gain score differences (mean pretest score minus mean posttest score for each group) among the three groups on

1. academic needs,
2. career/occupational needs, and
3. personal needs.

Academic Needs

There was no significant difference found among the scores of the three groups ($F = .2362$, $df = 2/45$, $p = >.05$) in the levels of expressed academic needs. The analysis of variance and cell means are summarized in Table 4-13 and Table 4-14.

Career/Occupational Needs

The results of one-way analysis of variance procedures indicated that there was no significant difference found among the scores of the three groups ($F = .0879$, $df = 2/45$, $p = >.05$) in the levels of expressed career/occupational needs. The analysis of variance and cell means are summarized in Table 4-15 and Table 4-16.

Personal Needs

There was no significant difference found among the scores of the three groups ($F = .7380$, $df = 1/45$, $p = >.05$) in the levels of the expressed personal needs. The analysis of variance and cell means are summarized in Table 4-17 and Table 4-18.

Table 4-13

One-way Analysis of Variance for Knowledge of Academic Needs

Source of Variation	Sum of Squares	df	Mean Squares	F Ratio	F Prob.
Between groups	4.61	2	2.31	.2362	.7906
Within groups	439.30	45	9.76		
Total	443.92	47			

Table 4-14

Cell Means and Standard Deviations

Group	Count	Means	SD
1	12	1.16	2.1249
2	21	1.80	3.12
3	15	1.20	3.72

Table 4-15

One-way Analysis of Variance for Levels of Career/Occupational Needs

Source of Variation	Sum of Squares	df	Mean Squares	F Ratio	F Prob.
Between groups	2.42	2	12.1	.0879	.9160
Within groups	621.48	45	13.81		
Total	623.91	47			

Table 4-16

Cell Means and Standard Deviations

Group	Count	Means	SD
1	12	1.42	2.99
2	21	1.86	3.83
3	15	2.00	4.03

Table 4-17

One-way Analysis of Variance for Levels of Personal Needs

Source of Variation	Sum of Squares	df	Mean Squares	F Ratio	F Prob.
Between groups	26.85	2	13.42	.7380	.4838
Within groups	818.80	45	18.19		
Total	845.66	47			

Table 4-18

Cell Means and Standard Deviations

Group	Count	Means	SD
1	12	1.83	3.24
2	21	2.23	3.22
3	15	3.66	5.94

Findings

No significant gain score differences were found among the groups on academic, career/occupational, or personal needs. Of interest was a small decrease in the levels of the needs expressed by the participants of the three groups after the group interventions. A similar but statistically significant reduction in the acuity level of expressed needs was reported by Kramer and Washburn (1983) in a study of traditional age freshmen and transfer students. The researchers found that though the students consistently ranked and perceived academic and career planning needs as most important, the overall perceived need level significantly decreased as the students went through a traditional orientation program.

Information disseminated through a group format appears to be valuable for effects that are not directly related to the content but rather to the medium used to communicate that information. In this study there were no significant differences found among the groups. Based on these results, Null Hypothesis 2 was not rejected.

Null Hypothesis 3

There are no gain score differences in perceptions of efficacy of institutional patterns of communicating information about student services among the three groups after treatment.

Analysis of variance procedures were applied to the gain score differences (mean posttest score minus mean pretest score for each group) among the three groups in perceptions of efficacy of institutional patterns of communicating information about student services perceived and reported by the three groups.

There was a significant difference found among the scores of the three groups ($F = 6.08$, $df = 2/45$, $p = <.05$) in perceptions of efficacy of institutional patterns of communicating information about student services perceived and reported by the three groups. The analysis of variance and cell means are summarized in Table 4-19 and Table 4-20.

Table 4-19

One-way Analysis of Variance for Perceptions of Efficacy of Institutional Patterns of Communicating Information About Student Services

Source of Variation	Sum of Squares	df	Mean Squares	F Ratio	F Prob.
Between groups	100.02	2	50.01	6.08	.0046
Within groups	369.95	45	8.22		
Total	469.97	47			

Table 4-20

Cell Means and Standard Deviations

Group	Count	Means	SD
1	12	4.16	2.65
2	21	1.61	3.36
3	15	.33	2.16

To identify the location of the significant difference found among the scores of the three groups, a Duncan Multiple Range Test was applied.

The group 1 mean was significantly different from the means of

group 2 and group 3. Group 1 received the treatment intervention/ information in the form of a lecture and a walking tour of student services. There was no significant difference found between the means of group 2 and group 3. The results of the Duncan Multiple Range Test are presented in Table 4-21.

Table 4-21

Duncan's Multiple Range Test for k = 3 Means*

Group	1 N = 12	2 N = 21	3 N = 15
Means	4.16	1.61	.33

*Any two means not underscored by the same line differ significantly.

Information alone did not effect the significant differences found among the groups. Groups 1 and 2 had received identical information, yet only group 1 demonstrated significantly greater gains in the participants' levels of agreement with a statement expressing positive perceptions of the efficacy of institutional patterns communicating information about student services. Rather, it appears that the format, the lecture and tour of services, may have been the factor effecting the reported gains. Orientation programs have traditionally made use of the lecture and tour format. The lecture and tour format appeared to be a viable format for the orientation of older students.

The small gains reported by group 2 and group 3, the control group, were not significantly different from each other. Neither of these groups had the opportunity of touring the services.

Based on the significant gain score differences found among the groups, Null Hypothesis 3 was rejected.

Null Hypothesis 4

There are no gain score differences in plans to use student services among the three groups after treatment.

Analysis of variance procedures were applied to the gain score differences (mean posttest score minus mean pretest score for each group) among the three groups in plans to use student services.

There was no significant difference found among the scores of the three groups ($F = .2766$, $df = 2/45$, $p = >.05$) in plans to use student services. The analysis of variance and cell means are summarized in Table 4-22 and Table 4-23.

Minimal gains were reported by the participants of the three groups. Receiving specific information about student services, regardless of the format used to communicate that information, did not significantly increase the students' level of agreement with a statement reflecting positive plans to use student services. In this area, even the tour of the services format had no significantly greater effect than the two groups that did not have the tour of services as part of their formats. In the review of the literature, two major reasons for student underutilization of student services were explored: (a) lack of awareness of student services and/or (b) perceptions of student services. In this study, even when students had been made aware of student services, their plans to use the services were not changed.

Because no significant gain score differences were found among the groups, Null Hypothesis 4 was not rejected.

Table 4-22

One-way Analysis of Variance for Plans to Use Student Services

Source of Variation	Sum of Squares	df	Mean Squares	F Ratio	F Prob.
Between groups	.89	2	.44	.2766	.7596
Within groups	73.01	45	1.62		
Total	73.91	47			

Table 4-23

Cell Means and Standard Deviations

Group	Count	Means	SD
1	12	.50	1.31
2	21	.29	1.48
3	15	.13	.83

Null Hypothesis 5

There are no gain score differences in perceptions of the educational relevance of student services among the three groups after treatment.

Analysis of variance procedures were applied to the gain score differences (mean posttest score minus mean pretest score for each group) among the three groups in perceptions of the educational relevance of student services.

There was no significant difference found among the scores of the three treatment groups ($F = .8539$, $df = 2/45$, $p = >.05$) in perceptions of the educational relevance of student services. The analysis of variance and cell means are summarized in Table 4-24 and Table 4-25.

Minimal gains were reported by the two groups that received the treatment information, i.e., groups 1 and 2. Group 3, the control group participants, reported no change after treatment. The differences among the groups were not significant. The students' perceptions of the educational relevance of student services were not changed by either receiving specific information about student services or exposure to a group process. Based on these findings, Null Hypothesis 5 was not rejected.

Null Hypothesis 6

There are no gain score differences in perceptions of the readiness of student services to serve students of all ages among the three groups after treatment.

Analysis of variance procedures were applied to the gain score differences (mean posttest score minus mean pretest score for each group) among the three groups in perceptions of the readiness of student services to serve students of all ages.

Table 4-24

One-way Analysis of Variance for the Educational Relevance of Student Services

Source of Variation	Sum of Squares	df	Mean Squares	F Ratio	F Prob.
Between groups	4.52	2	2.26	.8539	.4326
Within groups	119.28	45	2.65		
Total	123.81	47			

Table 4-25

Cell Means and Standard Deviations

Group	Count	Means	SD
1	12	.50	1.44
2	21	.71	1.67
3	15	.00	1.69

There was no significant difference found among the scores of the three groups ($F = 2.90$, $df = 2/45$, $p = >.05$) in perceptions of the readiness of student services to serve students of all ages. The analysis of variance and cell means are summarized in Table 4-26 and Table 4-27.

Table 4-26

One-way Analysis of Variance for Perceptions of the Readiness of Student Services to Serve Students of All Ages

Source of Variation	Sum of Squares	df	Mean Squares	F Ratio	F Prob.
Between groups	18.09	2	9.04	2.90	.0648
Within groups	139.88	45	3.10		
Total	157.97	47			

Table 4-27

Cell Means and Standard Deviations

Group	Count	Means	SD
1	12	1.58	1.88
2	21	.19	1.82
3	15	.13	1.55

All the groups reported increases in the levels of agreement with a statement reflecting positive perceptions of the readiness of student services to serve students of all ages. Once again, group 1, the lecture and tour of services group, reported a greater gain than

the other two groups. However, this increase was not found to be statistically different from the increases recorded by the other two groups. Specific information about student services communicated in an interactive, small groups format appears to have the same effect as information not relevant to specific student services communicated through a lecture and interactive, large group format. Based on the data analysis results, Null Hypothesis 6 was not rejected.

Null Hypothesis 7

There are no differences among the three groups in their levels of awareness, use, and satisfaction with student services (not aware of services, aware of services but have not used them, have used and were satisfied with services, and have used them and were dissatisfied with services) eight weeks after treatment.

The responses to the four categories of awareness, use, and satisfaction with student services were crosstabulated by the three groups and analyzed for significance through chi-square procedures. The distribution of the responses ($N = 360$) of all the participants ($N = 36$) is presented in Table 4-28. The distribution of responses by group is presented in Table 4-29.

Each of the categories was crosstabulated by the three groups. The probability that the observed distribution of category 1 and 2 cases would have happened by chance was less than $p = .05$ (see Table 4-30 and Table 4-31). According to the distribution of category 3 cases, the probability that the observed distribution would have occurred by chance was more than $p = .05$ (see Table 4-32). Category 4 received only two responses, both from group 2 participants. Analysis of category 4 distribution data did not yield any meaningful results due to the excessive number of empty cells (see Table 4-33).

Table 4-28

Distribution of Responses to Follow-up Questionnaire

Category	Count	%
1. Not aware of services	127	35.3
2. Aware but have not used services	194	53.9
3. Used and was satisfied with services	37	10.3
4. Used and was dissatisfied with services	<u>2</u>	<u>0.6</u>
Total	360	100.0

Table 4-29

Distribution of Responses to Follow-up Questionnaire by Groups

Group		Cat. 1	Cat. 2	Cat. 3	Cat. 4	
1. Lecture/Tour	Count	15	58	7	0	
	%	11.8	29.9	18.9	0	
2. Interactive	Count	53	93	22	2	
	%	41.7	47.9	59.5	100	
3. Control	Count	59	43	8	0	
	%	<u>46.5</u>	<u>22.2</u>	<u>21.6</u>	<u>0</u>	
Total	Count	127	194	37	2	360
	%	35.3	53.9	10.3	.6	100

Table 4-30

Crosstabulation and Chi-square Analysis of Category 1 Distribution

		Group			
		1	2	3	
No	Count	65	117	51	233
	%	81.3	68.8	46.4	
Yes	Count	15	53	59	127
	%	18.8	31.2	53.6	
Total	Count	80	170	110	360
	%	22.2	47.2	30.6	

Chi-square = 27.06; df = 2; Significance = 0.000

Table 4-31

Crosstabulation and Chi-square Analysis of Category 2 Distribution

		Group			
		1	2	3	
No	Count	22	77	67	166
	%	27.5	45.3	60.9	
Yes	Count	58	93	43	194
	%	72.5	54.7	39.1	
Total	Count	80	170	110	360
	%	22.2	47.2	30.6	

Chi-square = 20.89; df = 2; Significance = 0.000

Table 4-32

Crosstabulation and Chi-square Analysis of Category 3 Distribution

		Group			
		1	2	3	
Category 3					
No	Count	73	148	102	323
	%	91.3	87.1	92.7	
Yes	Count	7	22	8	37
	%	8.8	12.9	7.3	
	Total	80	170	110	360
	%	22.2	47.2	30.6	100

Chi-square = 2.58; df = 2; Significance = .2742

Table 4-33

Crosstabulation and Chi-square Analysis of Category 4 Distribution

		Group			
		1	2	3	
Category 4					
No	Count	80	168	110	358
	%	22.3	46.9	30.7	99.4
Yes	Count	0	2	0	2
	%	0.0	100.0	0.0	.6
	Total	80	170	110	360
	%	22.2	47.2	30.6	100

Chi-square = 2.24; df = 2; Significance = .325

There were significant differences found among the three groups in their levels of awareness, use, and satisfaction with student services eight weeks after treatment. The distribution of group responses along four categories of awareness, use, and satisfaction with student services was tested eight weeks after treatment.

Two of the four distributions did not occur by chance. Those two distributions were the responses to (a) I was not aware of this service and (b) I was aware of this service but have not used it. Group 1 and group 2, the groups that received the treatment/information, had significantly fewer reports of lack of awareness of student services than group 3, the control group, that did not receive the treatment/information.

The distribution of the responses of the three groups to (c) I have used this service and was satisfied with it, showed no significant differences in the way the responses were distributed among the groups. The fourth distribution, the responses of the three groups to (d) I have used this service and was dissatisfied with it, could not be adequately assessed because only two positive responses were recorded in this category; both of those responses were made by treatment group 2 participants.

In conclusion, specific information about student services did not have a significant effect on the students' levels of use of student services eight weeks after treatment. However, the groups that received that information, i.e., group 1 and group 2 participants, were found to have levels of awareness of student services that were significantly higher than those reported by their counterparts in group 3, the control group, eight weeks after treatment.

Summary

This chapter presented the results of the data analyses. Significant gain score differences were found among the three groups in

1. levels of knowledge about selected student services (Null Hypothesis 1),

2. perceptions of the efficacy of institutional patterns of communicating information about student services (Null Hypothesis 3), and

3. levels of awareness of student services eight weeks after treatment (Null Hypothesis 7).

Based on these results, Null Hypotheses 1, 3, and 7 were rejected.

For Null Hypotheses 1 and 7, the students who received the treatment information, i.e., participants in group 1, the lecture and tour of services format, and participants in group 2, the interactive, small group activities format, reported comparable, significantly higher gains than their counterparts who participated in group 3, the control group. In these instances, the treatment information rather than the information dissemination method effected the reported gains.

For Null Hypothesis 3, the treatment information alone did not effect the significant differences found among the groups. Participants in group 1 and group 2 had received the treatment information. However, participants in group 2 and group 3, the control group, reported similar small gains. Only the participants in group 1, the lecture and tour of services format, reported the significantly higher gains. In this instance, the method used to disseminate the treatment information emerged as the factor which effected the reported significantly higher gains.

CHAPTER V

DISCUSSION, IMPLICATIONS, AND RECOMMENDATIONS

In this chapter the results of the study are summarized. Implications for student personnel practice and theory are discussed and recommendations are made for future research.

Discussion

According to current demographic statistical projections, the number of part-time older students in higher education will soon exceed the number of full-time traditional age students. In the review of the literature, older students' need and desire for information about higher education programs and services were confirmed. This lack of information was identified as a barrier, a restraining force in the older students' drive to achieve a higher education goal. Despite older students' reported dissatisfaction with how institutions communicated information about student services, no documented assessment of the efficacy of different methods of communicating this information to older undergraduates was found in the literature.

The purpose of this study was to determine the effectiveness of two methods of communicating information about student services to older undergraduates. The independent variable was the specific information about four selected student services: the counseling and testing, financial aid, placement, and recreation. The information was communicated to group 1 in a lecture and tour of services format

and to group 2 through an interactive, small groups format. Group 3, the control group, received different information. Well publicized information about student government and the programs and activities council was communicated through a lecture and large, interactive group format. The dependent variables were the students' levels of (a) knowledge about selected services; (b) needs in academic, career/occupational, and personal areas; (c) agreement with four statements expressing positive perceptions of student services; and (d) awareness, use, and satisfaction with student services eight weeks after the informational group treatments.

There were two questions implied in the statement of purpose of this study:

1. Did specific information about student services make a difference in older students' levels of knowledge about student services; levels of academic, career/occupational and/or personal needs; and levels of agreement with statements expressing positive perceptions of student services?

2. Were any of the three information giving strategies or formats used in this study more effective than the others in effecting any of the significant changes identified in the data analysis results?

In response to question 1, exposure to a one-time, 3-hour, informational group activity on campus effected significant changes in the participating students' level of knowledge of student services, in their perceptions of the efficacy of the institutional attempts to communicate information about student services to older undergraduates, and in the students' levels of awareness of student services

assessed eight weeks after the informational group treatments. In addition, for older students, the lecture and tour group format was more effective than the interactive small groups format in effecting changes in the way they perceived the institutions' efforts to communicate information about student services to them.

In response to question 2, the group process itself, regardless of the informational content or the delivery of information format, was effective in lowering the acuity level of the students' academic, career/occupational, and personal needs. There were no significant changes noted in any of the groups, regardless of the information received or the information dissemination format used, concerning the students' plans to use the services as well as their perceptions of the relevance of student services.

Plans to use student services and perceptions of the relevance of student services appeared to be interdependent issues for minority student populations. In parallel studies (Benedict et al., 1977; Geisler & Thrush, 1975; Kasworm, 1977/1978), black undergraduate students and older students perceived student services to be oriented to the needs of the majority student population. Similarly, the older students in this study repeatedly expressed perceptions of themselves as "outsiders," unwelcome interlopers in the younger students' educational domain.

Although these perceptions were not changed by the one-time, short-term, informational group experiences provided by this study, these "no significant gain score differences" findings have significant implications for the practice of student personnel services with older undergraduates.

Implications

Implied in every research project are questions about the relevance of the findings. The results of this study are particularly relevant in their application to student personnel practice with older undergraduates and to the theoretical framework supporting that practice.

Applications for Practice with Older Undergraduates

In 1981, Chickering, well aware of the changing age composition of the American collegiate population and the need for student services professionals to redirect their activities to include older students, declared that "the overarching educational purpose of our colleges and universities should be to encourage and enable intentional change in students through the life cycle" (p. 2). In 1985, Lynch, Doyle, and Chickering concluded that acceptance and accommodation of older students in traditional, youth oriented colleges and universities had been found to be the result of a gradual, institution by institution response to the concerted advocacy efforts of interested student services professionals and articulate older students.

This study was conceptualized as a demonstration advocacy project and designed to render a valuable informational service to the older student/participants; to the younger, influential, "Orientation Team" (O.T.) volunteer facilitators; and to the student services administrators who supported this project even though at the outset it appeared to be one more outreach effort similar to previous unsuccessful attempts to reach older students. The ultimate goal was to effect, through the informational processes, institutional changes on

behalf of the older students. From this perspective, the results of this study include, beyond the data analysis results, an assessment of the impact that the informational content and exposure to the processes of outreach, training, planning, and implementation of the informational groups, had on all, younger and older, participants. In this assessment, two procedures used deliberately and consistently in all contacts with the participants were identified to be facilitative, positive forces in the establishment and maintenance of communications between student personnel professionals and older undergraduates. Those procedures were a personalized approach and a collegial attitude.

The personalized approach. Following the advice offered by Cross (1979a) and Lewicki and Thompson (1982), every contact made with the participants was personalized. The older students were pleased, if somewhat surprised, by the personal phone calls; the personalized, with computer assistance, letters; and the time and effort expended on their behalf by the younger O.T. facilitators. The design of group 2, the interactive, small groups format, tested the effectiveness of a highly personalized mode of imparting information. From comments made by the older students and observations made by the O.T. facilitators, the personal touch was well received and appreciated by the older students. However, the interactive, small groups format was not a more effective information dissemination method than the lecture and tour of services format. The value of the personalized approach was most evident during the outreach process. Considering previous failures of nonpersonalized outreach efforts, the personalized approach emerges as the crucial factor that was necessary to persuade

the older students to become involved in the on-campus informational experiences offered to them as part of this study. The personalized approach was sustained after the on-campus informational group experiences and can be credited with the older students' willingness to respond to the follow-up questionnaire mailed to them eight weeks after the on-campus informational group experiences.

The personalized approach facilitated changes in the O.T. facilitators that could not have resulted from an increase of information alone. In 1980, Banning asserted that an increase in awareness about older student characteristics and their requirements for student services would encourage student services professionals to develop age appropriate programs and services that would promote growth and development of all students. The personal contacts and training of the prospective O.T. facilitators succeeded in sensitizing influential student leaders to age-based inequities in the existing student service system and to the perspectives and student needs of older students. The O.T. facilitators discussed these issues during their formal training sessions. Later these issues and accompanying feelings were well articulated, again and again, by the participants of the three experimental groups. These experiences allowed the O.T. facilitators to personalize the information that they had received during their formal training sessions.

As a result of this personalized informational experience, the O.T. facilitators felt compelled into action. With encouragement from the older students, the O.T. facilitators initiated a support/social activities group for older students and made plans to approach the professional student center administrative staff to persuade them to

recruit and train older students as O.T. members to serve the orientation needs of older students and to serve as older student peer counselors. In short, the information learned in the training sessions and later personalized and reinforced during the treatment group experiences transformed a group of service oriented young people into advocates for the student services needs of older students.

The collegial attitude. Lynch and Chickering (1984) envisioned student services professionals adopting proactive roles as ecology managers/consultants, mentors/educators, and advocates for groups at risk. As ecology managers they were to become assessors of environmental stresses, challenges, and supports. As mentors/educators they were to become researchers of student characteristics and needs and teachers of life cycle and human development theory for students, faculty, and staff. As advocates they were to become mediators between student needs and institutional requirements becoming "breakers of barriers, fighters against prejudice and discrimination, and modelers of change" (p. 69). With a personalized approach, information can be used as the content and context with and through which communications can be established between an institutional staff and the older student population. However, the exchange of information between older students and student services personnel can be best achieved using a collegial rather than a parental or patronizing attitude.

In this study, the sustained use of a collegial attitude mitigated the older students' initial guardedness and allowed the identification of many of their feelings and concerns. Some of the feelings and needs identified included feelings of not belonging,

which were not easily dissipated; feelings of frustration; and difficulties with academic advising and registration processes. The students expressed a desire for more academic advising opportunities and for more courses to be offered in the evening hours. Older students expressed a need to be recognized as an important, distinct segment of the student population, especially the older members of the older student group. Not surprisingly, the most salient need identified was the need for information, especially information about academic issues.

Among older students, the need for information had already been repeatedly identified (Cross, 1981; Fauquet, 1983/1984; Fauquet & Edgemon, 1978; Kegel, 1977; Rawlins, 1979; Reehling, 1980) and described as a universally experienced need that seemed to transcend region or locale (Cross, 1979a). In this study it was demonstrated that a personalized approach and a collegial attitude in the delivery of information about student services to older undergraduates can be used, with relative ease, to bring about meaningful changes in a collegiate environment, changes that will eventually enhance the educational experience of older students and the practice of student personnel professionals.

Applications for Theory Development

The practice of student personnel professionals is based on philosophical and psychological views of humanity and human behavior. Student needs and student services must be conceptualized within a theoretical framework that can show their interdependence and can justify student personnel practices with particular populations.

Lewin's (1935, 1936) theory of human behavior can accurately depict the experiences of older students who undertake the pursuit of a higher education goal. He conceptualized behavior, or any kind of mental event, as the resultant function of forces acting upon individuals and their environments at any particular moment. Thus, forces (f) acting on persons (P) and on their current environments (E) would determine their behavior (B), or $B = f(PE)$. The direction and magnitude of the forces determined the direction and speed at which individuals moved toward any goal. The individuals' psychological life space represented the totality of the forces or vectors affecting persons and their environments. Vectors directed towards the achievement of a desired goal were called driving forces. Vectors which opposed the driving forces were called restraining forces.

In this study, student needs were perceived as forces or vectors opposing the students' movement towards achieving the educational goal. By contrast, age appropriate and timely student services were conceptualized as positive forces in the older students' life space. Information was identified to be a synergistic force: While its presence strengthened other positive forces in the life space, its absence compounded the restraining value of the negative forces in the life space. Lack of information about student services and programs was identified as a restraining force, a barrier in the older students' progress towards their educational goal. Further, it appeared that the primary barrier between adult students and the achievement of their educational goals was their perceptions of themselves as "outsiders," unwelcome in the traditionally youth oriented collegiate environment. Information about student services and programs alone

would not impact in any significant way this self-perception barrier. To be successful in traditional collegiate environments, informational programs and/or special services for older students had to be preceded by a personalized and sustained outreach effort. In addition, it was suggested that an attitude of collegiality had to imbue all communications between student services professionals and the older student.

In view of these findings, to conceptualize the behavior of older undergraduates, i.e., to project their progress towards their educational goals, Lewin's formula would have to reflect the presence (+) or absence (-) of appropriate and timely information (I) in the students' life space. Thus, forces (f), acting on persons (P) who possessed (+) or lacked (-) appropriate and timely information (I) and on their environments (E) would determine their behavior (B) or

$$B = f[(P \pm I)(E)].$$

Student personnel professionals can use this formula to assess the magnitude of positive and negative forces in the older students' life space. Also, the presence or absence of the appropriate and timely information factor or $\pm I$, can reflect an institutional commitment or lack of commitment to the education of its older student population.

Recommendations for Future Research

In this study, the effectiveness of two methods of communicating information about student services to older undergraduates was determined. Future research might replicate this study to confirm or refute its findings. Certainly research should continue to assess the effectiveness of methods of communicating academic,

career/occupational, and/or personal/social information to older undergraduates. In addition, research is needed to assess the effectiveness of methods of communicating information about older students' characteristics and needs to collegiate administrators, faculty, and staff. Research is needed to assess the impact of information about older students' characteristics and needs on collegiate, administrators, faculty, and staff's perceptions of older undergraduates. Research is needed to determine the level of information about older students' characteristics and needs that is imparted to students in graduate programs that purport to prepare future personnel services professionals. Finally, longitudinal research is needed to determine changes in older students' self-perceptions as they traverse the baccalaureate education years.

APPENDIX A
LETTER OF INVITATION TO PARTICIPATE

March 4, 1986

Dear

The Division of Student Affairs is pleased to invite you to participate in a study that aims to identify the academic, career/occupational, and/or personal issues that may affect the educational experience of our Students Over Traditional Age (SOTA). The results of this study will allow us to respond to SOTA students with more sensitivity. As a part of the study, we hope to give you information about existing student services and/or organizations that may facilitate and enrich your student life at UCF.

We feel that getting together with you, in small groups, would facilitate this dialogue. To achieve this, efforts were made to reach you by telephone in order to determine a day and time when you might be able to attend this get-together. It was found that most of the students that were reached would be able to come on either a Tuesday or Wednesday evening. We know that for some of you neither evening may be convenient, but please bear in mind that you are one of a small number of SOTA students randomly selected to speak for present and future SOTA students at UCF. Your input is necessary.

With the assistance of Student Center staff and Orientation Team students, we have scheduled two evening meeting dates. Please plan to come on either Tuesday, March 11, or Wednesday, March 12 at 5:30 p.m., whichever is most convenient for you, and to stay until 7:30 p.m. Groups will meet at Room 126 in the Humanities and Fine Arts Building.

Sincerely,

LeVester Tubbs
Vice President for Student Affairs

Ariela Rodriguez
Graduate Student

APPENDIX B
FOLLOW-UP INVITATIONAL LETTER

March 24, 1986

Dear

To follow up our letter to you dated March 4, 1986, we were delighted to meet 32 Students Over Traditional Age (SOTA) during the meetings held on March 11 and 12. SOTA students came from as far away as Lakeland, Melbourne, Deland, Kissimmee, Titusville, and Cape Canaveral. We also received letters and phone calls from other SOTA students who wished to participate but could not because the weekday evening meetings conflicted with their work/class schedules.

It continues to be our wish to dialogue with as many of you as possible, and to give you information about existing student services and/or organizations that may facilitate and enrich your life at UCF. Likewise, we would like to know the issues that may affect your student life.

With the help of Student Center staff and Orientation Team students, we have scheduled one more meeting date. This time we plan to meet at the Cafeteria (Student Center) on Saturday, April 5, 1986, 9:30 a.m. to 11:00 a.m. Continental breakfast will be available, our treat.

Please remember that you are one of a small number of SOTA students randomly selected to speak for present and future SOTA students at UCF. Please plan to come.

Sincerely,

LeVester Tubbs
Vice President for Student Affairs

Ariela Rodriguez
Graduate Student

APPENDIX C
STUDENT SERVICES AND UNDERGRADUATE NEEDS SURVEY

Part I

Levels of Information About Student Services

Most colleges and universities strive to communicate information about existing student services to all their students. For each of the services listed, please check (X) your level of information about each of the questions raised.

Counseling and Testing Center _____
Placement Center _____
Financial Aid _____
Recreational Services _____

1. What specific services are available through each of these services?

- a. I know
b. Unsure
c. I don't know . .

2. Which students may use these services?

- a. I know
b. Unsure
c. I don't know . .

3. Where are these services located?

- a. I know
b. Unsure
c. I don't know . .

Counseling and Testing Center

Placement Center

Financial Aid

Recreational Services

4. What are the hours of operation of these services?

a. I know

b. Unsure

c. I don't know . .

5. What are the fees for these services?

a. I know

b. Unsure

c. I don't know . .

Part II

Undergraduate Needs

Undergraduates express a variety of academic, career/occupational and personal concerns. The list below may reflect some of your concerns. Please respond to the following statements by checking (X) the space that most closely reflects your level of concern.

Indispensable _____
 Strong Need _____
 Moderate Need _____
 Some Need _____
 No Need _____

I NEED

1. To improve my reading speed					
2. Information about a variety of career areas					
3. To improve my ability to make decisions . .					
4. To become more comfortable in speaking up in class					
5. To get to know other older undergraduates .					
6. To budget and spend my money more wisely .					
7. To explore my interests, values, and abilities as they relate to my educational/career alternatives					
8. To explore job opportunities for people with my major					
9. To improve my math skills					
10. To learn leadership skills					
11. To learn what financial aid services are available for students my age					

Indispensable _____

Strong Need _____

Moderate Need _____

Some Need _____

No Need _____

I NEED

27. To improve my writing skills

28. To learn what academic skills help is
available on campus for students my age . .

(Please indicate other areas of need/concern that you have experienced
as a student at this institution)

30. _____

31. _____

32. _____

Part III

Student-Consumer Perceptions of Student Services

Most colleges and universities offer services designed to meet the needs of their students. For each of the services listed, please check (X) your level of agreement with each of the following statements.

Counseling and Testing Center

Placement Center

Financial Aid

Recreational Services

Levels of Agreement

1. This college does a good job of communicating information about these services to all students.

a. Agree

b. Unsure . . .

c. Disagree . .

2. I plan to use these services.

a. Agree

b. Unsure . . .

c. Disagree . .

3. These services play an important part in my education.

a. Agree

b. Unsure . . .

c. Disagree . .

4. These services, as currently organized and staffed, are adequately prepared to serve students of all ages.

a. Agree

b. Unsure . . .

c. Disagree . .

5. Please indicate how these student services could be improved.

- a. _____
- b. _____
- c. _____
- d. _____

6. Please indicate what other services and/or assistance should be provided to meet your needs as a student.

- a. _____
- b. _____
- c. _____
- d. _____

End of Survey.

Thanks for participating.

APPENDIX D
INTRODUCTORY BRIEFING

Good evening! My name is _____. I am an undergraduate student trained as an Orientation Team counselor. As you know, the Office for Student Affairs is conducting a study designed to determine the nature of your needs as students and to become better informed about the kind of services that you feel are necessary, given your academic, career or employment, and personal situations. This information is important for the university to continue to plan and provide services and programs appropriate to the needs of all students.

You have received two identical survey forms. The one coded "A" is to be completed now. The other, coded "B," is to be completed before you leave tonight. Each will take 10 minutes to complete. The survey asks basic questions about your knowledge and perceptions of student services, and about your academic, career/occupational, and personal concerns. The survey forms are coded to facilitate their analysis. Please do not write your name on the survey forms. Your responses will be held in strict confidence.

Most of the 43 questions ask that you place a check mark in the space that corresponds most closely to what would be your most candid response. The open-ended questions provide an opportunity for you to express your personal perspectives on the issues raised.

Are there any questions? (Pause)

Please complete the survey form coded "A" now. When you have finished, please pass them to one of the Orientation Team counselors.

Thank you.

APPENDIX E
USE OF AND SATISFACTION WITH SELECTED STUDENT SERVICES

Students, as consumers of student services, can provide valuable information about the quality of those services. For each of the services listed below, please check (X) the space that best reflects your use and satisfaction with that service.

a. I was not aware of this service.

b. I was aware of this service but have not used it.

c. I used this service and was satisfied with it.

d. I used this service and was dissatisfied with it.

1. Financial aid
2. Job placement
3. Recreational/sports facilities
4. Career planning
5. Counseling and Testing Center services
6. Use of IBM correcting typewriters
7. Evening student services
8. Discount tickets to movies/local attractions
9. Dental exam and cleaning
10. Legal services

11. Please comment upon your use of and satisfaction with student services.

End of survey

Thank you for participating

APPENDIX F
SUPPLEMENTARY QUESTIONNAIRE NO. 1

Form and Content of Parts I, III and Appendix E

Please review the attached survey forms and then answer the following questions.

1. Were there any words which you did not understand? _____
If so, what where they? _____

2. Were there any questions/statements in the surveys which you did not understand? _____

3. Were the instructions difficult to understand? _____

4. Were the answer spaces difficult to find? _____

5. Were the answer options too restrictive? _____

6. Please add any other comments relative to the form and/or content of the survey items. _____

7. Did you experience any difficulties understanding the items on this supplementary questionnaire? _____
If so, please specify which items. _____

End of questionnaire
Thanks for participating

APPENDIX G
SUPPLEMENTARY QUESTIONNAIRE NO. 2

Form and Content of the Undergraduate Needs
and Student Services Survey

Please review the attached survey forms and then answer the following questions.

Form

1. Were there any words in the survey which you did not understand?
If so, what were they? _____
2. Were there any statements in the survey which you did not understand?
If so, what were they? _____
3. Were the instructions difficult to understand? _____
If so, which instructions? _____
4. Were the answer spaces difficult to find? _____
If so, which answer spaces? _____
5. Was the survey too long? _____ Too short? _____ OK? _____

Content

1. Did the survey fail to assess an area of student concern? _____
If so, please specify which area. _____
2. Did the survey fail to mention an important student service? _____
If so, please specify which service. _____
3. Were there any items that applied only to students of a particular age? _____
If so, please specify which items. _____
4. Were the answer options too restrictive? _____
If so, please specify for which items were the answer options too restrictive. _____
5. Was the survey interesting? _____ Boring? _____ OK? _____

Form and Content

1. What would you definitely change about either the form or content of the survey? _____
2. Did you experience any difficulties understanding the items on this supplementary questionnaire? _____ If so, please specify which items. _____

3. Do you have any other comments? _____ If so, please write them below:

End of Survey

Thank you for participating

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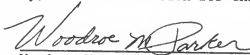
BIOGRAPHICAL SKETCH

Born in Havana, Cuba, Ariela attended high school in St. Augustine, Florida, and college at Barry University in Miami Shores, Florida, graduating with honors. She pursued graduate work in psychiatric casework at Fordham University's School of Social Service in New York City, earning a master's degree in social work in 1965.

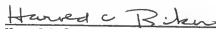
Ariela has provided clinical social work services, counseling, and family life education to individuals and families in many settings: public health centers, private mental health centers, U.S. military bases, adoption/foster care agencies, public assistance agencies, and community college programs for special populations. She has taught in child care and in human services associate degree college programs and in baccalaureate and graduate social work programs. She has developed, implemented, and administered grant-funded innovative programs for special populations such as resettlement programs for refugees from Cuba, Haiti, and Vietnam; parent education programs for military families; and for rehabilitative educational programs for displaced homemakers. Current occupational endeavors are in the area of crisis counseling and parent education in the neonatal intensive care unit setting.

Ariela is married and has three sons. Her favorite pastime is tending her fruit trees and admiring God's handiwork in her garden.

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Woodroe M. Parker, Chairman
Professor of Counselor Education

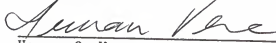
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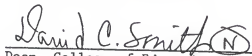
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This dissertation was submitted to the Graduate Faculty of the College of Education and to the Graduate School and was accepted as partial fulfillment of the requirements for the degree of Doctor of Philosophy.


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December 1987

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